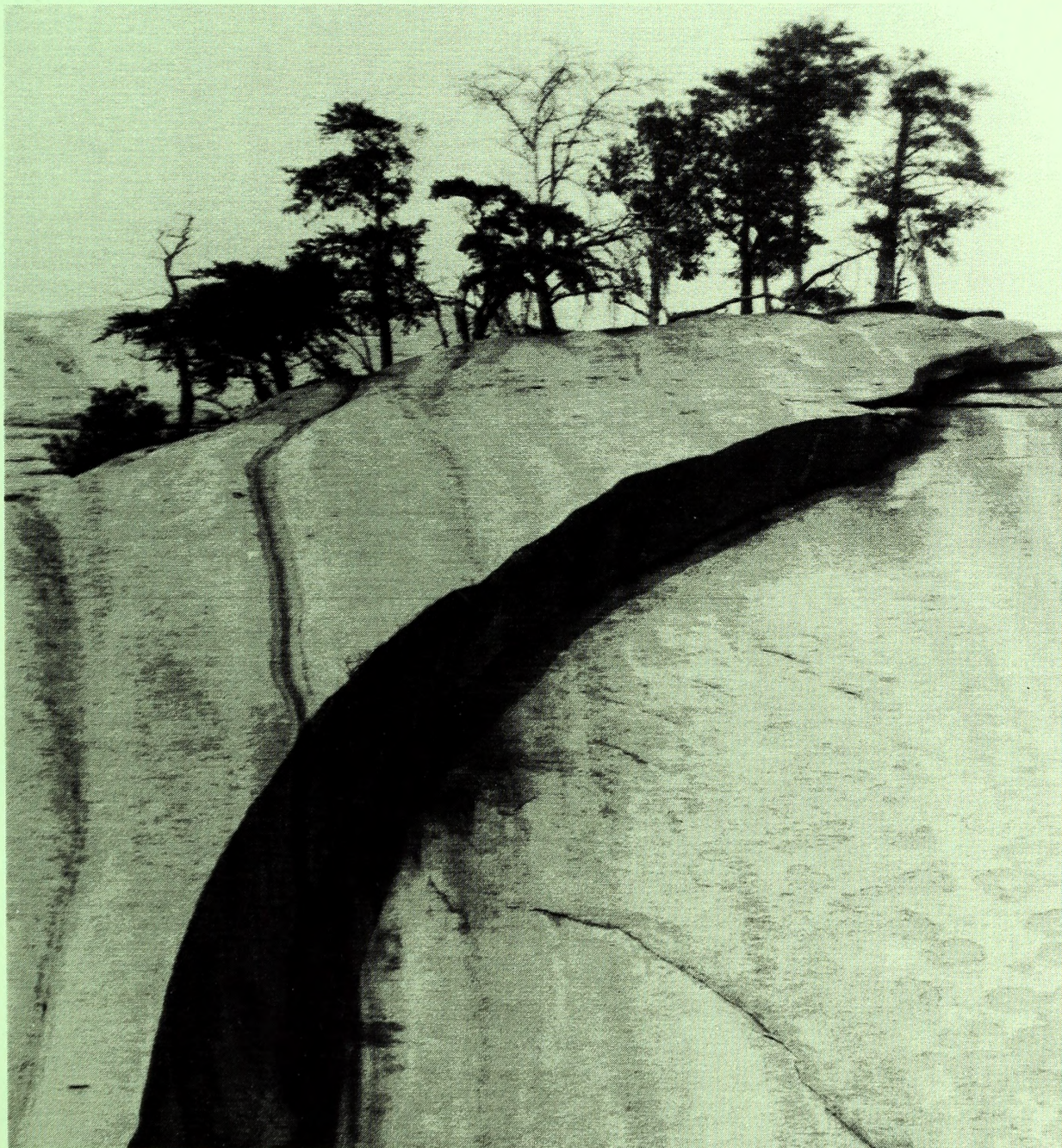



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Stone Mountain State Park General Management Plan





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GENERAL MANAGEMENT PLAN
FOR
STONE MOUNTAIN STATE PARK

Department of Environment, Health, and Natural Resources

Division of Parks and Recreation

Planning and Development Section

October, 1994

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INTRODUCTION

Planning is an essential element of effective and efficient park administration and management. The North Carolina General Assembly acknowledged its importance by passing state parks system legislation that includes planning requirements.

The 1987 State Parks Act (G.S. 114-44.7 through 114-44.14) stipulates that a State Parks System Plan be prepared. Such a plan was completed in December of 1988. It evaluated the statewide significance of parks, identified duplications and deficiencies in the system, described the resources of the system, proposed solutions to problems, described anticipated trends, and recommended means and methods to accommodate trends.

The State Parks Act also requires each park to have an individual general management plan. The general management plans are required to:

...include a statement of purpose for the park based upon its relationship to the System Plan and its classification. An analysis of the major resources and facilities on hand to achieve those purposes shall be completed along with a statement of management direction. The general management plan shall be revised as necessary to comply with the System Plan and to achieve the purpose of the [State Parks Act].

A GMP is to be a comprehensive five-year plan of management for a park unit. GMP's function to:

1. describe park resources and facilities;
2. state the purpose and importance of each park unit;
3. outline interpretive themes and propose locations for informational and interpretive facilities;
4. analyze park and recreation demands and trends in the park's service area;
5. summarize the primary laws guiding park operations;
6. identify internal and external threats to park natural and cultural resources, and propose appropriate responses;
7. identify and set priorities for capital improvement needs;
8. analyze visitor services and propose efficient, effective, and appropriate means of responding to visitor needs; and
9. review park operations and identify actions to support efficient and effective park administrative procedures.

The GMP for Stone Mountain State Park, developed with public involvement, is intended to serve these purposes.

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I. DESCRIPTION OF PARK RESOURCES AND FACILITIES

LOCATION

Stone Mountain is located on the eastern edge of the Blue Ridge escarpment in the Mountain Province of North Carolina. It is on the northern border of Wilkes County, approximately 17 miles northeast of North Wilkesboro, and extends into the southeastern portion of Alleghany County. The park is accessible via U.S 21, S.R. 1002, and the John P. Frank Parkway, between Sparta and Elkin.

LAND BASE

The park, established in 1969, consists of 13,437 acres. The area is characterized by extremely rugged wooded terrain, with several large granite outcrop areas, the most spectacular being Stone Mountain. Stone Mountain is a dome-shaped granite mass rising 700 feet above its base and is composed of biotite granite. Numerous creeks flow through the park and form several waterfalls. Stone Mountain Falls, located on Big Sandy Creek at the southeast end of the mountain, is the highest waterfall, with a vertical drop over 200 feet. The lowest elevations are along the East Prong Roaring River. A large expanse of steep, wooded terrain extends north and west from the river to the Blue Ridge escarpment. This area offers some of the most remote, wilderness conditions found in the state parks system (Figure I-1).

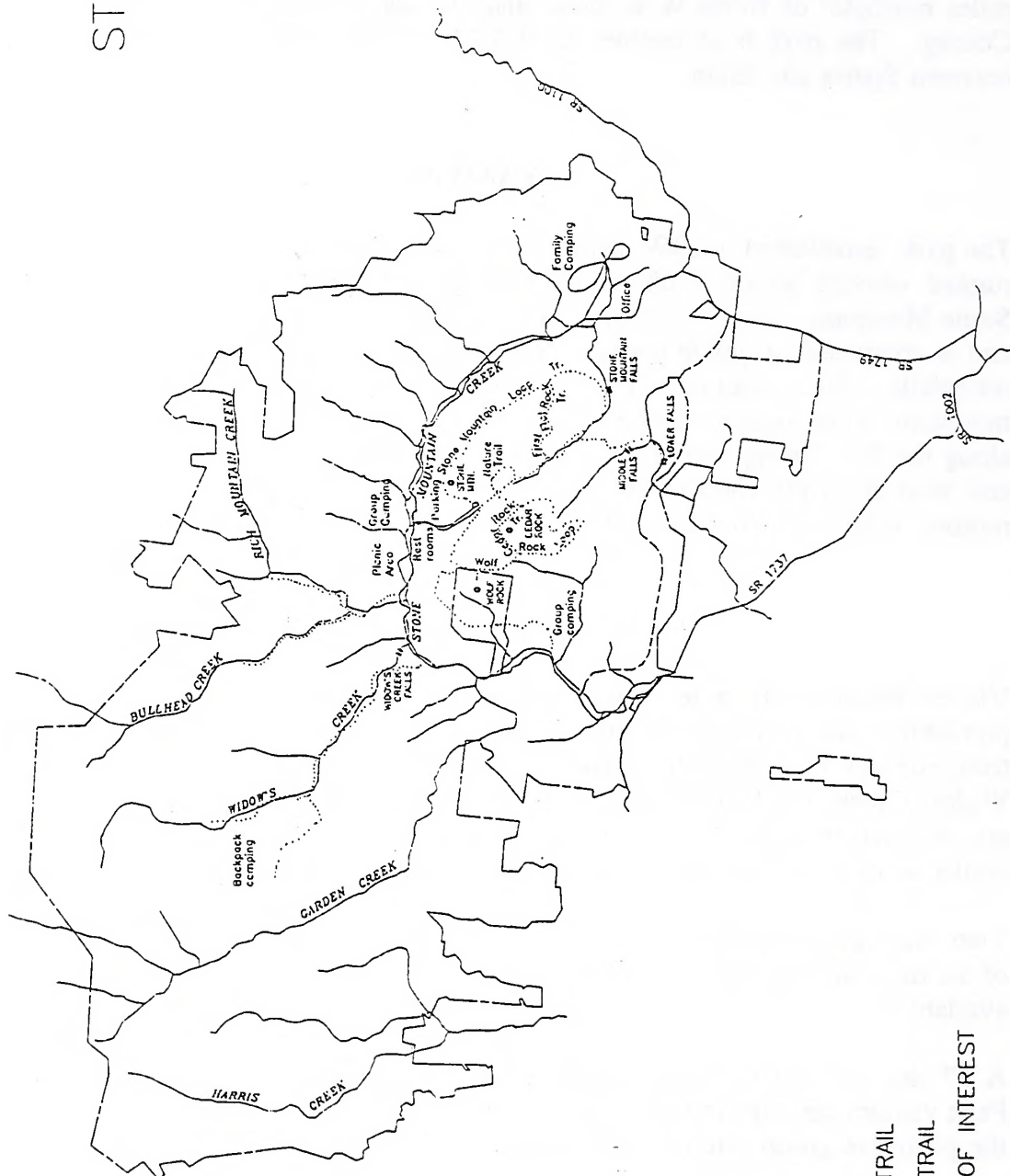
VISITOR FACILITIES

Visitor facilities at Stone Mountain State Park provide opportunities for hiking, camping, picnicking, and fishing. Ten hiking trails covering 26 miles are located in the park. Several trout streams flow through the park, including the East Prong Roaring River, Garden Creek, Widow Creek, Big Sandy Creek, and Harris Creek. Bullhead Creek and Rich Mountain Creek are designated as fish-for-fun streams. In these two streams, only fly-fishing with barbless hooks is permitted; all fish must be released, and a special park permit is required.

Two small picnic areas with a total of 12 picnic tables are available. One is located at the base of the mountain and the other along the East Prong Roaring River. No group picnic shelters are available.

A 37-site tent and trailer campground is located about one-half mile from the visitor center. Park visitors can hike to six primitive sites along Widows's Creek. Organized groups may use the primitive group camping area, which offers pit toilets, fire rings, and campsites.

STONE MOUNTAIN STATE PARK



LEGEND

- HIKING TRAIL
- BRIDLE TRAIL
- POINTS OF INTEREST

Figure I-1. Stone Mountain State Park

HISTORY OF THE PARK AREA

The park was established in 1969 after significant efforts by local residents and community leaders. A regional travel and recreation committee promoted the creation and improvement of the park because of its long-recognized scenic values and outdoor recreation potential. A combination of federal Land and Water Conservation Fund grants and donations initiated land acquisition at Stone Mountain.

Little information is available about the history of the Stone Mountain area beyond the homesteads and graveyards within the park boundaries. The master plan, completed in 1971, identifies research needs in the areas of archaeology, history, and natural resources. These studies are yet to be funded.

The master plan called for archaeological research to produce park maps indicating areas that are valuable to understanding when and where Native Americans may have lived in the park. Historical research is needed to study the farmsteads that once existed in the park. More research is also needed into the natural communities, with particular emphasis on the granite outcrops.

II. PARK PURPOSES

STATE PARKS SYSTEM MISSION STATEMENT

The North Carolina state parks system exists for the enjoyment, education, health and inspiration of all our citizens and visitors. The mission of the state parks system is to conserve and protect representative examples of the natural beauty, ecological features and recreation resources of statewide significance; to provide outdoor recreation opportunities in a safe and healthy environment; and to provide environmental educational opportunities that promote stewardship of the state's natural heritage.

STONE MOUNTAIN PARK PURPOSE STATEMENT

Stone Mountain State Park was established in 1969 when the efforts of local citizens led to the acquisition of 1,463 acres of land. Part of the land was donated, and its value was used as the state's matching fund for grants from the Land and Water Conservation Fund and the Appalachian Regional Commission supporting purchase of the initial land for the park. Since then, Stone Mountain State Park has grown to become one of the largest units in the state parks system. Its combination of highly significant biologic, geologic, scenic, recreational, and archaeologic resources makes it one of the premier units of the system.

The park serves North Carolina's residents and visitors by protecting the area's natural character; protecting wildlife and natural communities within the park; providing opportunities and facilities for viewing and enjoying the major scenic values of the area; providing opportunities for appropriate outdoor recreational use; and by providing interpretive and environmental programs that educate park visitors on the plant and animal life, geology, ecology, and archaeology of the area.

Among the significant geologic values is Stone Mountain, an exfoliation granitic dome rising 700 feet above the valley floor. It is the largest plutonic monadnock in the state. The light gray, medium-grained biotite granite forming the mountain developed from magma several miles deep in the earth. As erosion removed the overlying granitic rock, the resulting release in pressure caused the rock mass to move upward and intrude into older surrounding rocks sometime during the mid-Paleozoic era, 200 million years ago. Wolf Rock and Cedar Rock within the park are similar in structure. The proximity of these plutonic features to the Blue Ridge escarpment is of unusual geologic interest. As a result, Stone Mountain was designated as a National Natural Landmark in 1974.

The topography and microrelief, combined with substrates ranging from bare rock to fairly well-developed soil, support significant and diverse biologic values within the park. Natural communities include Acidic Cove Forest, Pine-Oak Heath, Chestnut Oak Forest, Dry-Mesic Oak-Hickory Forest, Low Elevation Rocky Summit, and Low Elevation Granitic Dome. Wolf-

Cedar Rock Natural Area features extensive development of outcrop communities that are excellent illustrations of the successional sequence in the various stages of granite colonization, from lichen to moss to herb to shrub to forest communities. Thirteen rare plant and animal species, including two endangered species, have been reported in or near the park. The park also protects over 200 species of vascular plants.

In addition to the significant scenic values of Stone Mountain and Wolf and Cedar Rocks, the park includes four waterfalls: Stone Mountain Falls, 200 feet in height; Middle Falls, a series of low slides; Lower Falls, approximately 25 feet in height; and Widow's Creek Falls. The northwestern vistas, a panoramic look at the Blue Ridge escarpment, are the most scenic in the park. The most extensive vistas can be best viewed from Wolf Rock. Seventeen miles of cascading trout streams within the park add to the beauty of its exceptional mountain scenery.

The park, which contains more than 13,000 acres, offers the most extensive wilderness back-country experiences in the state parks system. Stone Mountain is known for its premier rock-climbing opportunities. Other recreational opportunities within the park include hiking, camping, fishing, nature study, picnicking, and horseback riding.

Significant archaeologic resources include numerous historic structures, such as homesites, farmsteads, and graveyards. These resources provide an opportunity to portray the life of mountain settlers from an earlier era.

Stone Mountain was authorized as a state park so its valuable geologic, biologic, scenic, recreational, and archaeologic values could be protected. The Division of Parks and Recreation is charged with preserving these values and providing park experiences that promote pride in and understanding of North Carolina's natural heritage.

III. SUMMARY OF INTERPRETIVE THEMES

The 1987 State Parks Act defines the purposes of the state parks system. It establishes that:

The State of North Carolina offers unique archaeologic, geologic, biologic, scenic and recreational resources. These resources are part of the heritage of the people of this State. The heritage of a people should be preserved and managed by those people for their use and for the use of their visitors and descendents.

It further provides that:

Park lands are to be used by the people of this State and their visitors in order to promote understanding of and pride in the natural heritage of this State.

One of the best methods of meeting these purposes is through environmental education. The Department of Environment, Health, and Natural Resources has adopted the following definition of environmental education:

Environmental education is a process that increases awareness, knowledge, and understanding of natural systems -- the interdependence of living things, the impact of human activities -- and results in informed decisions, responsible behavior, and constructive action.

Stone Mountain State Park is well suited to environmental education, with its excellent representation of geology and habitat types found on the park's granite outcrops as well as along the Blue Ridge escarpment.

Stone Mountain State Park has one primary interpretive theme and four secondary themes. The primary theme is the interpretation of Stone Mountain's geology as a granitic monadnock.

PRIMARY INTERPRETIVE THEMES

GEOLOGY OF STONE MOUNTAIN

The geologic formation known as Stone Mountain is a plutonic monadnock of light gray, medium-grained biotite granite. The granite was formed from volcanic rock that was intruded into surrounding older rock during the Paleozoic era. The overlying rock has been eroded over millions of years to expose the granite dome.

SECONDARY INTERPRETIVE THEMES

Four secondary interpretive themes have been identified. They are:

- C.A.T.C.H. (Teaching youth to how to fish) Program
- Rare and Endangered Species
- Pristine Mountain Streams
- Local History

IV. PARK AND RECREATION DEMAND AND TRENDS

VISITATION TRENDS

Stone Mountain State Park has experienced an increase in visitation since 1989 after stable attendance during the previous six years. Annual visitation ranged between 175,000 and 190,000 from 1983 to 1988. Visitation grew to 223,537 in 1989, increased sharply to 269,125 in 1990 and climbed again in 1991 to 284,772 visits. In fact, a new record for the highest visitation in the park's history has been established in each of the past three years (Figure IV-1).

Visitation trends should continue to increase as more people become aware of Stone Mountain. In previous years, park staff report that a large percentage of park visitation consisted of repeat visitors. In recent years, word-of-mouth recommendations as well as news articles in regional papers featuring Stone Mountain have increased the park's visibility. The park's spectacular scenery and easy access from two interstate highways (I-40 and I-77) should encourage higher visitation in the future. The two interstate highways put North Carolina's three largest metropolitan areas - Charlotte, the Research Triangle, and the Triad - all within a three-hour drive.

Stone Mountain State Park has a peak visitor-use season that extends from April until October (Figure IV-2). In 1990, Stone Mountain State Park's monthly visitation fluctuated between 20,000 (in September) and 40,000 (in July) during this peak season, averaging over 34,000 visits per month. The lowest visitation is usually recorded during February.

POPULATION TRENDS

The population in the area served by Stone Mountain State Park is identified as the following six counties for this analysis: Alleghany, Forsyth, Iredell, Surry, Wilkes, and Yadkin. The total population in the region was 519,984 in 1990.

It is predicted the population will grow by 7 percent, or 36,615 people, during the next 10 years. Most of the population increase will occur in Forsyth and Iredell counties. The population in Alleghany and Wilkes counties, where the park is located, is expected to decrease slightly.

POPULATION TRENDS BY AGE GROUP

The region's population has a higher median age than the North Carolina median. The state median age increased from 29.6 in 1980 to 33.1 in 1990. All six counties in the region had a median age of 33.9 or above in 1990, with the highest median age occurring in Alleghany County (39.6). The aging trend is reflected in the large increases in the age groups above 40 years old (Figure IV-3). Only the 20- to 29-year-old age group will decrease significantly between 1990 and 2000.

ANNUAL VISITATION TRENDS 1980 - 1991

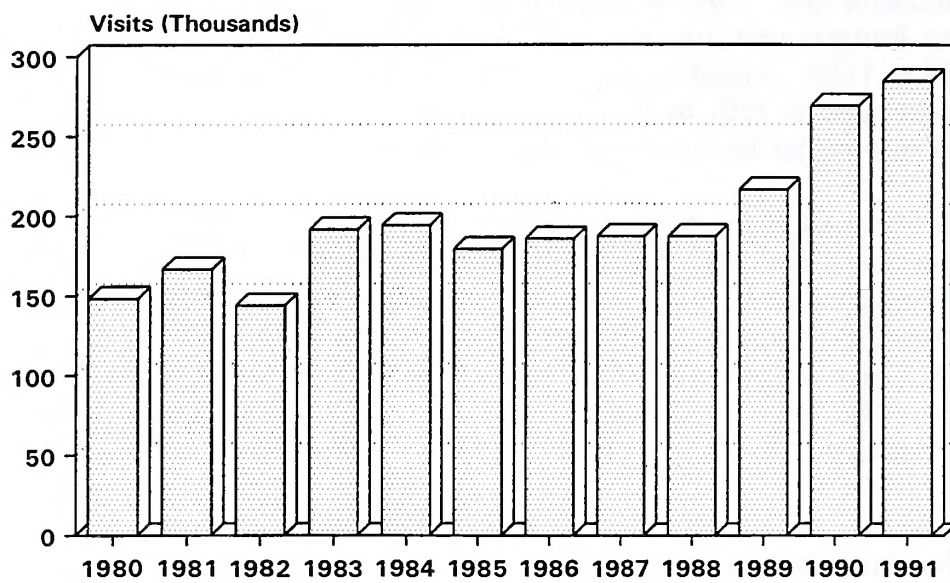


Figure 1. Stone Mountain State Park Annual Visitation Trends

MONTHLY VISITATION 1990

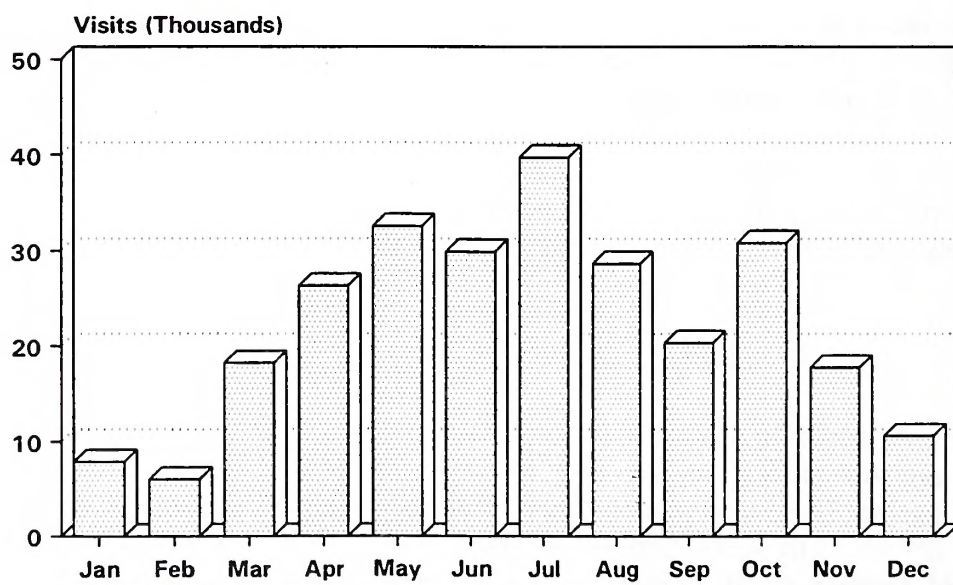


Figure 2. Stone Mountain State Park 1990 Monthly Visitation

REGIONAL AGE GROUP TRENDS 1980 - 2000

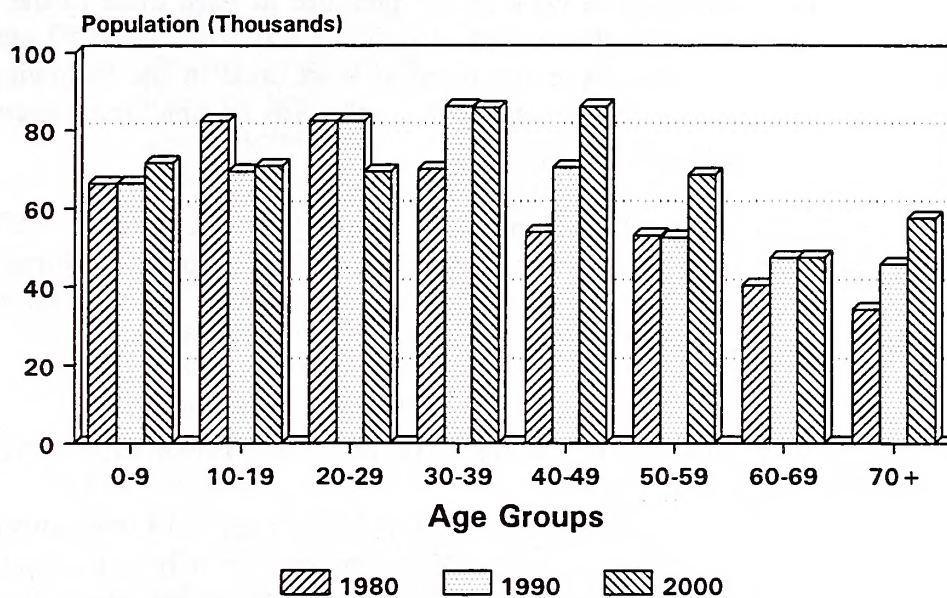


Figure 3. Regional Age Group Trends.

OUTDOOR RECREATION PARTICIPATION IN NORTH CAROLINA

The five most popular outdoor recreation activities in North Carolina are walking for pleasure, driving for pleasure, viewing scenery, beach activities, and visiting historical sites. Three out of every four households participated in walking for pleasure at least once in the past twelve months (Table IV-1). In addition to the five most popular activities, over 50 percent of the households responding to a 1989 survey participated at least once in the following activities: swimming (in lakes, rivers, or oceans), visiting natural areas, picnicking, attending sports events, visiting zoos, and freshwater fishing.

The North Carolina Outdoor Recreation Participation Survey was mailed to 3,100 randomly selected residents in the spring of 1989. Forty-five percent or 1,399 people returned completed surveys. Each person receiving the survey was asked to estimate the number of times the members of his/her household had participated in each of 43 activities.

PRIORITIES FOR PUBLIC OUTDOOR RECREATION FUNDING

The North Carolina Outdoor Recreation Survey asked residents a series of questions to determine their unmet outdoor recreation demands and their support for public funding to provide additional public facilities for these activities. As a result, a statewide needs assessment was developed.

Future demand was determined by asking citizens which activities they would have tried more often had adequate facilities been available. Respondents were asked to rank these activities in order of importance. A scoring system was then used to rate each activity either high, moderate or low future demand based on the survey results.

In the second part of the analysis, the degree of public support for funding outdoor recreational needs was determined by asking respondents to identify and rank those activities to which government should give the highest priority when spending public money. The scoring system used to analyze unmet demand was used again to assign each activity a rating of high, moderate, or low public support for public funding based on the survey results.

The needs assessment then combined the two ratings for each activity to produce a score of from one to nine, with one being the highest priority and nine the lowest. The activities given higher priority in the needs assessment are those that received high support for public funding as well as high future demand scores (Table IV-2).

Based on this analysis, the activities rated as having the highest priorities are activities that are currently or could potentially be provided at Pilot Mountain State Park. The activities include walking for pleasure, tent or vehicle camping, picnicking, visiting natural areas, viewing scenery, trail hiking, and using open areas.

Table IV-1. Outdoor Recreation Activities Ranked By Popularity.

Rank	Activity	Percentage of Households Participating
1.	Walking for Pleasure	75%
2.	Driving for Pleasure	72
3.	Viewing Scenery	71
4.	Beach Activities	69
5.	Visiting Historical Sites	62
6.	Swimming (in Lakes, Rivers, and Oceans)	54
7.	Visiting Natural Areas	53
8.	Picnicking	52
9.	Attending Sports Events	52
10.	Visiting Zoos	51
11.	Fishing - Freshwater	50
12.	Use of Open Areas	41
13.	Swimming (in Pools)	40
14.	Fishing - Saltwater	38
15.	Attending Outdoor Cultural Events	35
16.	Bicycling for Pleasure	32
17.	Other Winter Sports	31
18.	Camping, Tent or Vehicle	29
19.	Softball and Baseball	28
20.	Hunting	28
21.	Use of Play Equipment	28
22.	Power Boating	26
23.	Trail Hiking	26
24.	Jogging or Running	24
25.	Basketball	24
26.	Nature Study	22
27.	Golf	22
28.	Target Shooting	20
29.	Water Skiing	19
30.	Camping, Primitive	14

Table IV-2. Priorities for Future Outdoor Recreation Activities

Activity	Code	Future Demand	Support for Public Funding
Walking for Pleasure	1	High	High
Camping, Tent or Vehicle	1	High	High
Picnicking	1	High	High
Beach Activities	1	High	High
Fishing - Freshwater	1	High	High
Attend Outdoor Cultural Events	1	High	High
Visiting Natural Areas	2	High	Moderate
Use of Play Equipment	2	High	Moderate
Visiting Zoos	2	High	Moderate
Visiting Historical Sites	2	High	Moderate
Bicycling for Pleasure	3	Moderate	High
Swimming (in Pools)	3	Moderate	High
Viewing Scenery	4	Moderate	Moderate
Hunting	4	Moderate	Moderate
Trail Hiking	4	Moderate	Moderate
Use of Open Areas	4	Moderate	Moderate
Target Shooting	4	Moderate	Moderate
Swimming (Lakes, Rivers, Ocean)	4	Moderate	Moderate
Fishing - Saltwater	4	Moderate	Moderate

RECREATION OPPORTUNITIES IN CLOSE PROXIMITY

Three state parks are within a one-hour drive of Stone Mountain State Park (Pilot Mountain State Park, New River State Park and Mt. Jefferson State Park). Doughton Park, a National Park Service unit, is located along the Blue Ridge Parkway. It has 100 campsites for tent campers, 26 sites for recreation vehicles, as well as trails and interpretive exhibits. The U.S. Army Corps of Engineers areas at Kerr Scott Lake provide camping and opportunities for water-based recreation activities. The Corps operates three areas on the lake - Bandits Roost, Marley's Ford, and Warrior Creek. These areas offer a combined total of 146 tent and trailer campsites, swimming beaches, boat ramps, and fishing.

Four commercial campgrounds are in the vicinity. These include the Shady Rest Campground (28 trailer sites, near Roaring Gap), the Greenfield Campground (100 trailer sites, near Mt. Jefferson), the Holly Ridge Campground (62 trailer sites, near Boonville, and the Blue Ridge Foothills Campground (36 trailer sites, near Dobson).

MANAGEMENT IMPLICATIONS OF DEMOGRAPHIC AND SOCIOECONOMIC TRENDS

Listed below are management implications of trends identified in the Systemwide Plan for the State Parks System that are relevant to Stone Mountain State Park.

- State parks system recreational opportunities are not adequate to meet public demand for many popular activities. The facilities currently available often fall short of visitor expectations for quality, quantity and variety. These visitors must either go to other parks or do without. Without additional recreational opportunities in state parks, unmet demand will only increase.

The park's 37-site campground is filled to capacity frequently during summer weekends, and as many as 50 families are turned away on holiday weekends. The ongoing demand indicates a need to expand tent and trailer camping facilities.

The picnic area in the master plan has not been completed, and existing facilities are inadequate. Expanded picnic facilities should include both individual sites as well as group shelters. These areas should be sufficiently separated to minimize conflicts.

- Families constitute 60 percent of the groups visiting the state parks system, according to the 1986 Public Area Recreation Visitor Study (PARVS) survey in North Carolina. Population projections predict the birth rate will continue to increase through the end of the century. As these new families demand recreation and park opportunities, the system should experience increased demand for children's programs and facilities. Families interested in longer stays in the park would use cabins and the proposed lake development if they were available. These facilities should be considered when the park master plan is reviewed.

It will be important to develop interpretative centers and environmental education programs to accommodate this increased population of children if we wish to instill an environmental ethic in the new generation. The new Stone Mountain State Park visitor center has significant potential for portraying the park's interpretative themes if exhibits and educational equipment are funded.

- The growing elderly population has more leisure time but participates in active leisure activities less frequently than younger age groups. Declining health is the most frequent reason cited for giving up an activity. The elderly are therefore more concerned with the safety, quality and accessibility of park facilities. Bus tours, which provide the elderly with greater mobility and opportunities for socializing, are becoming increasingly popular. State parks should be capable of accommodating bus tours and large school groups and providing them with adequate facilities as well as appropriate information and education programs.

Stone Mountain trout streams are excellent locations for wheelchair-accessible fishing areas. Accessible campsites must also be provided with the campground expansion to

add to the current accessible sites.

- The increasing cosmopolitan and educated segment of the North Carolina population participates in outdoor recreation more frequently, usually on weekends and close to home. This pattern creates a demand for higher quality leisure delivery systems near population centers. College graduates participate in the following natural-resource oriented activities at a rate double that of non-graduates: canoeing/ kayaking, sailing, backpacking, day hiking, ice skating, and cross-country skiing.
- As two-wage earner families become more common and urban lifestyles predominate, these families will have less time to plan leisure outings. Better information systems on state parks will help increase public awareness of park opportunities available and reduce public frustration in accessing park resources. Improved brochures, exhibits, signs, and interpretative programming are critical needs at Stone Mountain State Park.
- Most, if not all, emerging social groups will expect more and better services at state park units, such as exhibits, brochures, visitor centers, and decent toilets.
- State park attendance, particularly at attractive parks near large urban areas, will continue to grow because of the trend toward frequent trips to nearby parks for one-day or weekend visits. Stone Mountain should continue to experience increased visitation from the population centers along the I-77/I-40 interstate highway corridors.
- The state parks system should experience a continued demand for dispersed-use opportunities, which are threatened by greater visitation, encroaching development, and environmental degradation.

The backcountry area within the park should continue to provide high-quality opportunities for hiking, camping, and other primitive recreation opportunities.

- The growing number of service sector jobs, which are relatively lower paying, will create an economic class limited in its ability to afford private and commercial recreation opportunities. Public parks will have an important role in providing inexpensive recreational opportunities. Group picnic areas, preferably separated from individual sites, are needed to accommodate groups as well as outdoor interpretive programs.
- Bicycling is the second fastest-growing recreational activity in the United States, and more park visitors will be bringing bicycles to the parks. State parks are logical camping areas and attractions for the bicyclists following the tour biking routes identified by the Department of Transportation Bicycling Highways Program. Bike parking and storage facilities will make state parks more attractive.
- The influence of the environmental lobby will increase as a result of increased public attention focused on problems such as air pollution, acid rain, changing climate patterns, droughts, and accelerating development. Donations and memberships in environmental

organizations have been steadily increasing and expanding the base of support for action on environmental issues. These environmental problems do not have short-term solutions and will continue to generate public concern and support for government action.

- The elderly are potentially the most influential interest group in the 21st century. Their growing numbers, education and organization as well as their voting and spending power will be dominant factors in public decisions. The expectations for park and recreation areas and facilities will be for improved quality, accessibility, and safety. Responding to these expectations and developing an elderly constituency will be advantageous.

V. SUMMARY OF LAWS GUIDING PARK MANAGEMENT

There are many federal and state statutes, state and federal executive orders, and administrative rules and policies that govern the operation of the state parks system. This chapter includes a brief discussion of the primary legal basis for the existence and operation of the state parks system.

STATE LEGAL MANDATES

NORTH CAROLINA CONSTITUTION

Article XIV, Section 5 of the North Carolina Constitution sets overall policy by broadly defining the conservation and protection of natural resources and the acquisition of such resources as a proper function of government. The amendment reads in part as follows:

It shall be the policy of this State to conserve and protect its lands and waters for the benefit of all its citizenry, and to this end it shall be a proper function of the State of North Carolina and its political subdivision to acquire and preserve park, recreation, and scenic areas, to control and limit the pollution of our air and water, to control excessive noise, and in every other appropriate way to preserve as a part of the common heritage of this state its forests, wetlands, estuaries, beaches, historical sites, open land, and places of beauty.

STATE PARKS ACT

The State Parks Act (G.S. 113-44.7 through 113-44.14) sets forth a mission statement for the state parks system. It states that the system functions to preserve and manage representative examples of significant biologic, geologic, scenic, archaeologic, and recreational resources, and that park lands are to be used by the people of the state and their visitors and descendants in order to promote understanding of and pride in the state's natural heritage.

The State Parks Act also calls for development and periodic revisions of a System Plan to achieve the mission and purpose of the state parks system in a reasonable, timely, and cost-efficient manner. The Act describes System Plan components and requires that public participation be a component of plan development and revisions.

The State Parks Act also calls for the classification of park resources and development of general management plans (GMPs) for each park. GMPs are to include a statement of park purpose, an analysis of major resources and facilities, and a statement of management direction.

POWERS AND DUTIES OF THE DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES

This act authorizes the Department to make investigations of the resources of the state and to take such measures as it may deem best suited to promote the conservation and development of such resources. The Act also authorizes the Department to care for state forests and parks and other recreational areas now owned, or to be acquired by, the state. (G.S. 113-8)

STATE NATURE AND HISTORIC PRESERVE DEDICATION ACT

The General Assembly in 1973 passed the State Nature and Historic Preserve Dedication Act to "prescribe the conditions and procedures under which properties may be specifically dedicated for the purposes enumerated by Article 14, Section 5 of the North Carolina Constitution (Conservation of Natural Resources)" (G.S. 143-260.6 to 143-260.10). A three-fifths majority of the General Assembly is required to add or remove land from a state nature and historic preserve. Stone Mountain State Park is a component of the State Nature and Historic Preserve.

NORTH CAROLINA ENVIRONMENTAL POLICY ACT OF 1971

Recognizing the profound influence that man's activity has on the natural environment, the General Assembly passed the Environmental Policy Act "to assure that an environment of high quality will be maintained for the health and well-being of all..."

The Act declares that:

It shall be the continuing policy of the State of North Carolina to conserve and protect its natural resources and to create and maintain conditions under which man and nature can exist in productive harmony. Further, it shall be the policy of the State to seek, for all its citizens safe, healthful, productive, and aesthetically pleasing surroundings; to attain the widest possible range of beneficial uses of the environment without degradation, risk to health or safety; and to preserve the important historic and cultural elements of our common inheritance. (G.S. 113A-3)

While there are other General Statutes that concern the state parks system and the environment, the above-described statutes, along with Article XIV, Section 5, of the North Carolina Constitution, largely define the purposes of the state parks system and serve to guide the operation of state park system units.

MINERAL RIGHTS

The North Carolina Granite Corporation has maintained the mineral rights to a portion of the Wolf Rock area. Mining activities can begin in 1994, 25 years after the property was originally donated to the state. Mining, and the related activities within park boundaries, would be a conversion according to the Land and Water Conservation Fund Act.

FEDERAL LAWS

LAND AND WATER CONSERVATION FUND ACT OF 1965

The federal Land and Water Conservation Fund Act (PL 88-578) offers protection and places restrictions on fund-assisted outdoor recreation areas. By virtue of receiving Land and Water Conservation Fund (LWCF) grant assistance, most of the state parks system, including all of Stone Mountain State Park, is subject to LWCF rules and regulations. Property acquired or developed in whole or in part with LWCF assistance cannot be converted to other than public outdoor recreation use without federal approval. A conversion may only take place if approved by the secretary of the Interior, and only then if replacement property of equal fair market value and reasonably equivalent usefulness and location is made.

LWCF requirements include: programming, operating and maintaining areas in a manner that encourages public participation; maintaining the property so it appears attractive and inviting to the public; maintaining property, facilities and equipment to provide for public safety; keeping facilities, roads, trails and other improvements in reasonable repair throughout their lifetime to prevent undue deterioration and encourage public use; keeping the park and facilities open for use at reasonable hours and times; and making future development meet LWCF rules and regulations. LWCF-assisted sites are periodically inspected by state and federal inspectors to ensure compliance with LWCF requirements.

STATE POLICIES

STONE MOUNTAIN STATE PARK MASTER PLAN

The master plan is to serve as a guide for development and management of park resources. It includes an analysis of cultural and natural resources as well as site analysis and development recommendations.

The master plan was developed with two primary objectives in mind: preserving and protecting the park's natural condition and character; and establishing a recreation program that provides an opportunity for public enjoyment of the park.

During the general management plan process, the master plan, that had been revised in the early 1980's was reviewed to determine if development proposals are still valid. The GMP evaluation determined that the phase one development is still appropriate. Phase two development --

specifically, the proposal for a lake impoundment -- should be reviewed in later updates of the general management plan. Master plan maps are included in Chapter VII of this document.

VI. NATURAL AND CULTURAL RESOURCE MANAGEMENT

NATURAL RESOURCE MANAGEMENT POLICY

The Division of Parks and Recreation's approach to natural resource management is directed by the North Carolina Constitution and the State Parks Act, both of which require the management of natural resources. The constitution sets overall policy by broadly defining the conservation and protection of natural resources and the acquisition of such resources as a proper function of government. The State Parks Act states that unique archaeological, geological, biological, scenic, and recreational resources are a part of the heritage of the people, which "...should be preserved and managed by those people for their use and for the use of their visitors and descendants."

The North Carolina State Parks System plays an important role in maintaining, rehabilitating, and perpetuating the state's natural heritage. The natural resources of the state parks system are: high quality, rare or representative examples of natural communities; native plants and animals; geological features and landforms; water resources; and the natural processes that affect these elements. The primary objective in natural resource management will be the protection of natural resources for their inherent integrity and for appropriate types of enjoyment while ensuring their availability to future generations.

It is the policy of the Division that natural resources will be managed by allowing natural environments to evolve through natural processes with minimal influence from human activities. Resource management will not attempt solely to preserve individual species or individual process; rather, it will try to maintain all the components and processes of naturally evolving ecosystems. When intervention is necessary, direct or secondary effects on park resources will be minimized to the greatest extent possible. Intervention with natural processes may occur:

- 1) to correct or compensate for the disruption of natural processes caused by human activities;
- 2) to protect, restore, or enhance rare species;
- 3) to protect, restore, or enhance significant archaeological resources;
- 4) to construct, maintain, improve, or protect park facilities; and
- 5) to prevent danger to human health and safety.

PLANT COMMUNITIES AT STONE MOUNTAIN STATE PARK

The communities described below follow the Classification of the Natural Communities of North Carolina: Third Approximation (Schafale and Weakley, 1990).

ACIDIC COVE FOREST

The Garden Creek Registered Natural Area (RNA) supports an excellent example of this community type. The canopy is quite diverse and may include tuliptree (Liriodendron tulipifera), red maple (Acer rubrum), red oak (Quercus rubra), sweet birch (Betula lenta), Canada hemlock (Tsuga canadensis), and black locust (Robinia pseudoacacia). The understory includes dogwood (Cornus florida), Fraser's magnolia (Magnolia fraseri), and sourwood (Oxydendrum arboreum). The shrub layer is dominated by great laurel (Rhododendron maximum). Ginseng (Panax quinquefolium), a plant with significantly rare status, is believed to occur in this area.

CHESTNUT OAK FOREST

This community is common on open slopes and ridgetops west of the Garden Creek RNA and other portions of the park. Chestnut oak (Quercus montana) and/or scarlet oak (Q. coccinea) dominate the canopy with a mixture of other hardwoods and pines. Pitch pine (Pinus rigida) is more common in the lower elevations and table mountain pine (P. pungens) in the higher elevations. American chestnut (Castanea dentata) sprouts are a reminder of previous forests, while sourwood is a major component of the understory. Ericaceous plants are major components of the shrub and herb layers.

DRY-MESIC OAK-HICKORY FOREST

This community appears to be represented in the transition zone between the more xeric ridges and the more mesic coves. Various oaks and hickories are dominant, including white oak, red oak, and black oak (Q. velutina). Pines and more mesic species such as tuliptree are also often important species.

DRY OAK-HICKORY FOREST

Some of the ridgetops and upper slopes at lower elevations support small pockets of this community type. They are dominated by dry site hardwoods, especially white oak, chestnut oak, black oak, southern red oak (Q. falcata), and hickories (Carya spp.). Shortleaf pine (Pinus echinata), Virginia pine (P. virginiana), or other pine species also occur.

LOW ELEVATION GRANITIC DOME (ACIDIC VARIANT)

Stone Mountain and Wolf Rock are prime examples of this community type. These steep to gently sloping exposures of smooth, exfoliated granite generally lack soil, except for shallow patches, which support pioneer species of lichens and mosses. Woody species, including pines, chestnut oak, and Virginia red cedar, grow where there is sufficient soil.

LOW ELEVATION ROCKY SUMMIT

This community is generally associated with rugged rock outcrops and varies from bare rock, to lichen and moss dominated communities, to scattered forbs and woody species. Good examples occur in the northwestern portions of the park. Stunted pitch pines and chestnut oaks are among the scattered trees. Mountain laurel (Kalmia latifolia), pale dryland blueberry (Vaccinium pallidum), and St. John's-wort (Hypericum prolificum) are among the shrubs found in crevices. Little bluestem (Schizachyrium scoparium), wavy hairgrass (Deschampsia flexuosa), perennial bentgrass (Agrostis perennans), and big bluestem (Andropogon gerardii) occasionally form unusual grassy patches.

MONTANE OAK-HICKORY FOREST

Although this community is more common in the southern mountains, it occurs at Stone Mountain in limited areas on ridgetops and upper slopes, especially in the northwestern area of the park. The canopy is dominated by a diverse mixture of oaks, hickories, and other hardwoods. Sourwood, dogwood, and canopy species are common in the understory, along with American chestnut sprouts. Ericaceous shrubs are common but not dense, and the herb layer is sparse but diverse.

PINE-OAK/HEATH

The best example of this community occurs on Scott's Ridge between Garden Creek and Widow Creek. The canopy contains scattered dwarfed specimens of pitch pine, table mountain pine, chestnut oak, and scarlet oak, with occasional red maple, black gum, and sourwood. The shrub layer is quite dense and includes mountain laurel, Catawba rhododendron (Rhododendron catawbiense), flame azalea (R. calendulaceum), black huckleberry (Gaylussacia baccata), and mountain highbush blueberry (Vaccinium constablaei).

RICH COVE FOREST

This community type occurs along sections of the East Prong of the Roaring River, Big Sandy Creek, and Garden Creek. The canopy is typically quite diverse and may include Canada hemlock, American beech (Fagus grandifolia), tuliptree, mountain basswood (Tilia americana), sweet birch, yellow birch, red oak, red maple, sugar maple, cucumber-tree (Magnolia

acuminata), Fraser's magnolia, silverbell (Halesia tetraptera), and ironwood (Carpinus caroliniana). Great laurel dominates immediately along the streams, but shrub diversity increases away from the streams. The subcanopy includes red maple, ironwood, dogwood, and spicebush. A diverse herb layer includes Fraser's sedge (Cymophyllus fraseriana), red trillium (Trillium erectum), and plantain leaf sedge (Carex plantaginifolia)

NATURAL HERITAGE PROGRAM ELEMENT OCCURRENCES

PIEDMONT GERARADIA (Agalinus decemloba)

This species, listed as significantly rare, typically occurs in dry, open sites and was collected in the park in 1975. Current status is unknown.

LIVERWORT (Calypogeia peruviana)

This species from the NC Watch List (i.e., believed to be rare, but inadequate information exists to assess its status) was listed for the park between 1975 and 1977.

FRASER'S SEDGE (Cymophyllus fraseriana)

This species, also on the NC Watch List, was listed from the Stone Mountain RNA in 1981. However, there is no indication of quantity or precise location. The species has also been reported from Rich Cove Forest on Garden Creek.

CRESTED CORALROOT (Hexalectris spicata)

This species is listed as significantly rare and was reported in 1940 to occur "1/4 mi. from the top of Stone Mountain, southeast slope, growing under pines." The location is believed to be in the Registered Natural Area, but current status of the species is unknown. Excessive human traffic in the area could be detrimental to this plant.

SULLIVANT'S MANED-MOSS (Macrocoma sullivanii)

This significantly rare species was collected in 1975 in the Wolf-Cedar Rock RNA. Although the population is believed to be in good condition, an up-to-date inventory of the population is warranted.

GREENLAND SANDWORT (Minuartia groenlandica)

This species is a candidate for state listing as a protected species and was reported in 1973 and 1981 as occurring in outcrop communities on Cedar Rock. Current status of the population is unknown.

KEEVER'S BRISTLE MOSS (Orthotrichum keeverae)

This species, listed by NHP as endangered in North Carolina, was collected in 1975 at Cedar Rock. The population's current status is unknown.

GINSENG (Panax quinquefolium)

This species is listed as significantly rare in North Carolina. Although it was listed in Widow's Creek Gorge in 1980 and in the Stone Mountain RNA in 1981, there are no records of quantity or precise location. Suitable habitat occurs in the Garden Creek Natural Area as well as other locations in the park.

WAFER-ASH (Ptelea trifoliata)

This species from the NC Watch List was listed in 1973 as occurring in a mixed hardwood stand at the edge of the Cedar Rock outcrop. The population's current status is unknown.

BOG TURTLE (Clemmys muhlenbergii)

This species is listed by NHP as threatened in North Carolina. It has been collected in the park in recent years near the major streams, and suitable habitat exists in the park.

COMMON RAVEN (Corvus corax)

This species is significantly rare in North Carolina and is listed as having been present in the Garden Creek RNA in 1976. The population's current status is unknown.

EASTERN COUGAR (Felis concolor)

There have been many reports of sightings and tracks of this federally endangered species in and near the park. Given the park's size and remoteness, the occurrence of this species is plausible. Whether the species still exists in the wild in North Carolina is questionable, however, and many of the various sightings across the state may be of animals that have escaped from captivity.

BLACK BEAR (Ursus americanus)

This species is listed as significantly rare in North Carolina. There have been many reports of sightings and tracks of this species in or near the park. The size of the park and the adjacent open forested areas makes occurrence of the species plausible.

REGISTERED NATURAL HERITAGE AREAS

Stone Mountain Registered Natural Heritage Area: This area encompasses 266 acres and includes the massive exfoliated dome for which the park is named. Designated as a National Natural Landmark in 1974, Stone Mountain rises 600 feet above the surrounding land. This granite monolith has been rounded by weathering and is pocked by weather pits. Pockets of shallow soil support mats of pioneer outcrop plants or small patches of forest dominated by pine, oak-hickory, or oak/heath. Cove hardwoods dominate the lower slopes. The summit offers spectacular views of the adjacent Piedmont and Blue Ridge Mountains. Unfortunately, this area is showing deterioration from overuse. Trails are not always clearly marked, and visitors often ignore even well marked trails, creating wide networks of trails. This is especially evident around the base of Stone Mountain. These trails lead to vegetation trampling and soil compaction and have also resulted in a receding soil line around some outcrop perimeters.

Wolf-Cedar Rock Registered Natural Heritage Area: This area encompasses 178 acres and centers around Wolf and Cedar rocks, two outcrops located on a smaller granite monolith that lies across a small valley southwest of Stone Mountain. Eight uncommon species of moss are found in this area, and Cedar Rock supports the most extensive granite outcrop plant communities currently in public ownership in western North Carolina. As a consequence of its smooth surface, much of the vegetation on Cedar and Wolf rocks occurs as mats, and Cedar Rock supports an excellent successional sequence illustrating the various stages of granite outcrop colonization. Although this natural area receives regular visitor use (it offers excellent views of the south face of Stone Mountain), trails are well marked and large portions of the area are bare rock. Consequently, at this time, adverse impacts on the area's sensitive vegetation mats are not severe.

Garden Creek Registered Natural Heritage Area: This area covers 1,285 acres and supports high quality examples of several plant communities. It spans nearly the entire topographic profile of the Blue Ridge Escarpment edge, running from the western edge of the inner Piedmont to the eastern edge of the Blue Ridge Mountains. Garden Creek and its Cove Hardwood Forests protect outstanding scenic and biological qualities. Numerous seepage slopes and feeder creeks, waterfalls, rock outcrops, and steep slopes and ravines support a variety of microhabitats along the stream valley. Despite past logging, some trail erosion and compaction, and Hurricane Hugo in 1989, this area is in excellent condition. Human traffic is fairly low, and the area is large enough so that adverse impacts are minimized.

POTENTIAL ADDITIONS TO REGISTERED NATURAL HERITAGE AREAS

Stone Mountain RNHA: Consideration should be given to including Stone Mountain Falls and Big Sandy Creek in this RNHA. The presence of a waterfall dropping over 200 feet across the exposed granitic dome and the high quality but fragile communities adjacent to the creek support inclusion.

Wolf-Cedar Rock RNHA: All of the dome on which Wolf and Cedar rocks occur should be included in this RNHA. Although this area is tolerating current visitation levels, its fragile plant communities are probably the most unique habitat in the park, and they are highly vulnerable to foot traffic. Private mineral rights held by North Carolina Granite Corporation include part of this area.

Garden Creek RNHA: This RNHA should be expanded to include the Widow's Creek and Harris Creek watersheds. Both of these streams are rated as superior in water quality and offer many scenic features. Natural communities include Chestnut Oak Forest, Montane Oak-Hickory Forest, Low Elevation Rocky Summit, Pine-Oak/Heath, Acidic Cove Forest, and Rich Cove Forest. Special plant populations include ginseng, Piedmont gerardia, and Fraser's sedge. Special animal populations include black bear and possibly any of the other species listed for the park.

RESOURCE MANAGEMENT ISSUES

NATURAL RESOURCES INVENTORIES

John Taggart's 1973 inventory describing the park's plant communities was a thorough beginning; at the time, however, the park covered only 2100 acres. Now the park contains over 14,000 acres, and additional acquisitions are planned. Most of the work in the park has been reconnaissance inventory, and information on animal populations is very limited. A complete biological survey of the park is needed, and emphasis should be placed on locating and determining the status of special plant and animal populations.

CULTURAL RESOURCES

An archaeological survey of the park's proposed lake site (160 acres) was undertaken in 1978. Eleven significant prehistoric archaeological sites were found, and further investigation was recommended for six of the 11 sites. No standing structures of historic value were found.

A separate archaeological survey of areas proposed for development under Phase I of the park's master plan was conducted in 1980. This survey covered approximately 76 acres and included the areas around the park's main access road, parking lots, visitor center, picnic areas, and other facilities. Eight prehistoric archaeological sites were identified. Seven of these sites were deemed insignificant, and no further investigation was recommended. The eighth site, known as "The Rock House," was located outside the development area, and was considered to be potentially eligible for the National Register of Historic Places.

MINERAL RESERVATIONS

When the Wolf Rock area was acquired for the park in 1969, mineral rights to the granite were retained by the North Carolina Granite Corporation. A 25-year moratorium on exercising those rights is scheduled to expire in 1994. Mining this granite would be extremely damaging to the ecological, recreational, and scenic values of the park. The mineral rights should be acquired by the state to ensure the protection of the park and Wolf Rock's fragile outcrop communities.

DEER

No population census of the park's deer population has been conducted recently. Periodic monitoring would be beneficial.

EXOTIC SPECIES

A number of escaped ornamental plant species are present in the park, particularly in disturbed areas or old home sites. An effort should be made to determine the identity, location, and extent of these species and, where practical, they should be removed.

Impacts from the park's feral goat (Capra hircus) population do not appear to be major at present, but without a monitoring program, we cannot quantify their effects with certainty. Goats have had devastating impacts historically on other fragile ecosystems, and although these goats are popular with the public, consideration should be given to eliminating this introduced species. At the least, an accurate census of the population is needed.

The Wildlife Resources Commission has stocked three species of trout, only one of which, brook trout (Salvelinus fontinalis), is native. In order to maximize native populations, consideration should be given to eliminating the stocking of competing rainbow trout (Salmo fairdneri) and brown trout (Salmo trutta). Brook trout populations are declining in much of their native range as a consequence of degraded water quality. Careful consideration should occur before construction of the master-planned lake, which could dramatically and negatively alter the park's brook trout habitat.

FIRE ECOLOGY

Fire ecology in the Piedmont and Mountain regions of North Carolina is poorly understood, and the natural fire regime for the park is largely unknown. Future research on this topic would help determine the need for prescribed burning in the park.

OLD FIELD MANAGEMENT

An accurate map of the park's old fields should be developed and old fields should be maintained only if they contribute to the park's facilities or interpretive program. Given the quantity and quality of habitat found in and around the park, managing old fields for wildlife is probably unnecessary. Old fields not affected by facilities or educational programs could be abandoned to natural successional processes.

ROCK CLIMBING

There are approximately 40 permanently marked routes on the south face of Stone Mountain and another 20 to 30 on the less frequently climbed north face. Most these routes have been established through the use of expansion bolts, and there is some concern that these bolts may have an unacceptable impact on the park's natural resources. The bolts at Stone Mountain are typically widely spaced (i.e., 10-80 feet) along any given route; consequently, their effect on the rock's integrity is minimal. The mountain's high quality rock ensures secure bolt placements, so these bolts do not affect the surface structure of the rock (i.e., there is no exfoliation, or "dinner plating," around the bolts). Due to the near bareness of the rock face, climbing causes virtually no disturbance of vegetation. Climbing ethics at Stone Mountain have traditionally been quite stringent, and there is no indication that the park's rock resources are likely to suffer the sorts of abuse that have plagued other areas (i.e., excessive bolting, chopping holds, etc.). Since climbing is so popular at the park, however, staff should be particularly attentive to climbing activity. With so many routes already in place, the establishment of new routes and the excessive placement of anchors should be discouraged, and information stressing concerns about impacts should be posted at the climbers' information/registration area.

TRAIL EROSION

Most of the park's trails are in good condition and are safe. Some trails, however, particularly in the Stone Mountain RNA, are heavily used and in need of repair. Plant communities have been trampled, and soil has been compacted and is receding in some areas.

WATER QUALITY/SEDIMENTATION

Efforts should be made to identify and monitor all internal and external threats to water quality in the park. Land acquisition is not yet complete, and the park has experienced problems with construction in nearby watersheds.

RESOURCE MANAGEMENT PLAN

A comprehensive, park-specific resource management plan addressing these and other resource management needs should be developed. This plan should include detailed actions whose implementation will prevent or correct resource threats or damage. The addition of district resource management specialists would facilitate the development of this plan.

VII. PHYSICAL PLANT INVENTORY

FACILITY INVENTORY AND INSPECTION PROGRAM

The buildings in state parks are needed for park operations and visitor services. These buildings and facilities are essential components of protecting the public's health and safety. They include facilities providing safe drinking water, restrooms, and electricity, as well as recreation facilities such as bathhouses, group camps, and cabins. Without proper maintenance, these facilities are, at best, a disservice to the citizens who use them, and at worst, potentially harmful.

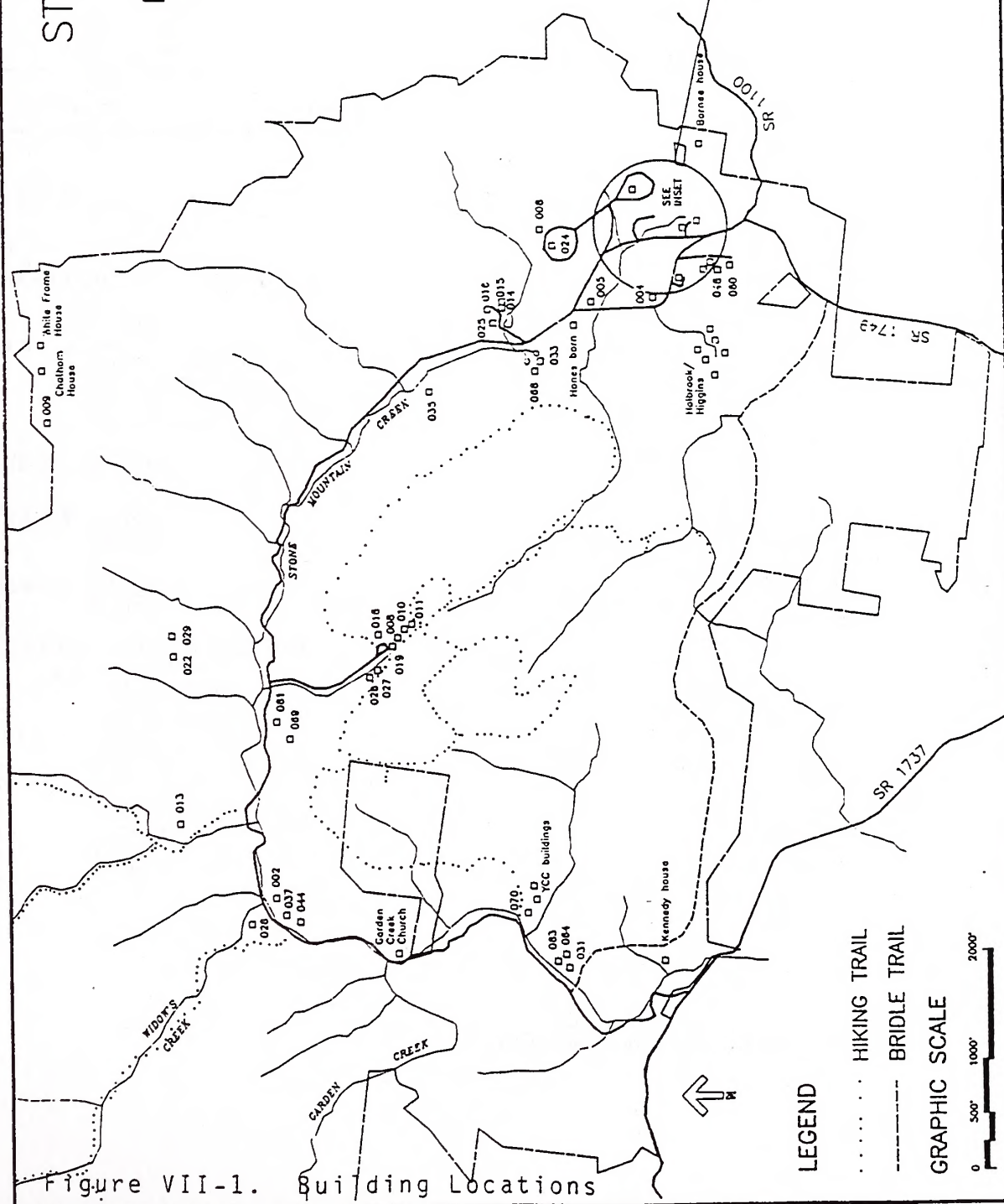
The Facility Inventory and Inspection Program (FIIP) is a computer-based system used to track the condition, maintenance needs, and repair costs of every building in the state parks system. At Stone Mountain State Park, 45 buildings were identified in the inventory, including structures that predate the park's establishment such as barns, sheds, and houses. A principal objective of FIIP is to identify deficiencies that may affect health, fire, or life safety. Other objectives are to identify accessibility deficiencies and other significant maintenance-related deficiencies.

The field evaluation begins with an inventory of all structures in the park. The results of the inventory are presented using the building name and state property numbers as identification (Table VII-1 and Figure VII-1). Next, the types of repairs and repair costs are listed for each building (Table VII-2). Finally, the cost summary for the park is given using the nine basic categories of repairs (e.g. exterior envelope) and the three levels of deficiencies (Table VII-3).

Table VII-1. Building Inventory.

BUILDING CODE	BUILDING NAME	IN USE
018001	Park Office	Y
018002	Old Shop Building	Y
018004	Visitors' Center	Y
018006	Residence at Campground	N
018008	Hutchinson Pumphouse	Y
018009	Alexander House	Y
018010	Barn at Hutchinson Place	Y
018011	Hutchinson Barn	Y
018013	Refreshment Trailer	Y
018014	Williams Log House	N
018015	Williams House @ pond	Y
018018	Hutchinson Log House	Y
018019	Hutchinson House	Y
018022	Picnic Shelter - Group Camp	Y
018024	Pit Privy	Y
018025	Pit Privy	N
018026	Pit Privy	Y
018027	Pit Privy	Y
018028	Pit Privy	Y
018029	Pit Privy @ Group Site 1	Y
018030	Superintendent's House	Y
018031	Gentry House	Y
018032	Pardue House	Y
018033	Hamlin House	N
018035	Crouse House	N
018037	Old Farm House (Old Park Office)	N
018039	Smokehouse at Building 030	N
018040	Feed Barn at Building 032	N
018041	Pumphouse at Building 030	N
018042	Shed at Building 030	N
018044	Pumphouse at Building 037	N
018048	Shed at Building 060	N
018051	Garage (Clay Royal Place)	N
018052	Clay Royal House	N
018054	Hicks House (Demolished)	N
018058	Barn at Clay Royal Place	N
018059	Barn at Clay Royal Place	Y
018060	Barracks	N
018061	Restroom at Parking Lot	Y
018062	New Maintenance Building	Y
018063	Pumphouse near Building 031	Y
018064	Shed next to Building 031	Y
018065	Washhouse at Camping Area	Y
018066	Chicken Barn at Clay Royal's	Y
018068	Shed At Building 033	N

STONE MOUNTAIN STATE PARK BUILDING LOCATIONS



Prior to the park's establishment in 1971, the Stone Mountain State Park site was a rural community consisting of scattered farmsteads, whose buildings are mostly still in existence. This largely accounts for the fact that buildings in the park are nearly equally divided between those that are in good or relatively good condition and those that should be demolished or left standing only until replacement storage buildings can be built (e.g. Building #018-066: the chicken barn at Clay Royal's).

Most of the repairs required for buildings in good condition are of a fairly minor nature, with all but three buildings totalling less than \$10,000 each in estimated repair costs (Table VII-2). Only buildings requiring repairs or demolition appear on this list.

Table VII-2. Facility Repair and Demolition Needs.

Bldg#	Building Name/Need	Demolition Cost	Repair Cost
018-001	Park Office		\$ 7,952
	Remove enclosure around lighting panel		84
	Replace screen door, wood porch decking, wood steps and columns		878
	Replace heating unit		6,420
	Patch cracks in foundation wall		75
	Demolish unused chimney, patch wall & roof		495
018-002	Old Shop Building		\$ 4,038
	Replace stove pipe vent		413
	Replace broken window panes		102
	Repair cracked CMU chimney		674
	Clean & paint gutters		263
	Replace roof shingles		2,427
	Paint gables & trim		161
018-006	Residence at Campground		\$ 6,921
	Install fire extinguisher		110
	Replace damaged siding, paint to match		75
	Insulate ductwork		324
	Pipe from furnace to chimney		206
	Fuse box, GFCI receptacles		957
	Replace all flooring		5,250
018-008	Hutchinson Pumphouse		\$ 67
	Regrade for proper drainage		
018-009	Alexander House		\$ 1,679
	Add missing handrail at stairs		188
	Add lights at stairs		375
	Regrade for proper drainage		150
	Electrical repairs		375
	Add telephone		300
	Smoke alarm		174
	Fire extinguisher		110
018-010	Barn at Hutchinson Place		
	Building is to be renovated as a capital improvement project for historic preservation.		
018-011	Hutchinson Barn		
	Building is to be renovated as a capital improvement project for historic preservation.		

Table VII-2. Facility Repair and Demolition Needs (Continued).

Bldg#	Building Name/Need	Demolition Cost	Repair Cost
018-013	<u>Refreshment Trailer</u>		\$ 9,711
	Extend chimney to two feet above roof ridge		188
	Fire extinguisher		83
	Provide operable windows that can be secured.		5,850
	Add exterior lighting at each exit		333
	Add HC parking, entry ramp, and restroom		2,846
	Add six electrical outlets, including 2 GFCI		411
018-014	<u>Williams Log House</u>	\$ 1,800.00	
	Structural and electrical systems unsafe.		
018-015	<u>Williams House</u>		\$ 10,160
	Grade & gravel driveway		6,600
	Pave parking & walkway to house		525
	Roof repairs		1,110
	Replace missing counter top		75
	Mark breaker box		23
	Add smoke detectors, fire extinguisher		327
	Add posts at porch		585
	Replace drop-in range top & range hood		840
	Repair wood porch steps		75
018-018	<u>Hutchinson Log House</u>		
	Building is to be renovated as a capital improvement project for historic preservation.		
018-019	<u>Hutchinson House</u>		\$ 11,060
	Replace 5 baseboard heaters		1,287
	Install 9 electrical outlets, including 2 GFCI		571
	Add directory for panel		77
	Replace damaged floor and flooring		7,520
	Replace fluorescent light, add exit light		356
	Replace screens & shutters		1,054
	Add drywall & paint in closet area		195
018-025	<u>Pit Privy</u>	\$ 300	
018-028	<u>Pit Privy</u>		
	Replace	\$ 1,000	
018-029	<u>Pit Privy</u>		
	Replace	\$ 1,000	
018-030	<u>Superintendent's House</u>		\$ 48,905
	Drill new well		4,500
	Add 21 outlets, including 3 GFCI		1,197
	Replace damaged doors		867
	Replace storm doors		900
	Replace windows with energy efficient style		10,509
	Add furring strips, rigid insulation, and drywall		7,214
	Patch cracks in CMU and stucco		7,500
	Replace damaged floor & flooring		4,226
	Replace rotten counter top		795
	Insulate ductwork		705
	Clean mildew, paint entire interior		10,494

Table VII-2. Facility Repair and Demolition Needs (Continued).

Bldg#	Building Name/Need	Demolition Cost	Repair Cost
018-031	<u>Gentry House</u>		\$ 5,876
	Add smoke alarm		174
	Clean chimney		90
	Add GFC 3 outlets		332
	Replace foundation vents		398
	Replace wood columns		240
	Replace thermostat		60
	Regrade for proper drainage		300
	Replace missing screens		338
	Caulk & repaint windows, trim & porch		1,269
	Replace damaged drywall, repaint as required		579
	Replace damaged floor with new under layment & vinyl flooring		827
	Replace insulation		125
	Replace countertop		698
	Relocate utility sink		450
018-032	<u>Pardue House</u>		\$ 8,362
	Electrical repairs, lights, wiring, switches outlets, breaker box knockouts		923
	Tuck paint foundation walls		6,510
	New HVAC		168
	Provide proper wastewater drainage		191
	Insulate water lines		300
	Add storm windows		75
	Repair door jambs		
018-033	<u>Hamlin House</u>	\$ 2,457	
	Plumbing, electrical & roofing systems unsound.		
	Chimney cracked; columns, windows & screens inadequate.		
	No operational value.		
018-035	<u>Crouse House</u>	\$ 7,500	
	Electrical, structural and roofing systems inadequate. No operational value.		
	Salvage hard woods before demolition		
018-037	<u>Old Farm House (Old Park Office)</u>	\$ 6,600	
	Structural, electrical, HVAC systems unsound. No operational value.		
018-039	<u>Smokehouse at Building 030</u>	\$ 300	
018-040	<u>Feed Barn at Building 030</u>	\$ 2,100	
	Structural and roofing elements are unsound. No operational value.		
018-041	<u>Pumphouse At Building 030</u>	150	
	Building is in poor condition and will not be required after new water supply installed.		
018-042	<u>Shed at Building 030</u>	\$ 2,250	
	Building is in poor condition. No operational value.		
018-044	<u>Pumphouse at Building 037</u>	\$ 225	
	Building is not in use. No operational value.		
018-048	<u>Shed at Building 060</u>	\$ 3,000	
	Roof & structural elements unsound. No operational value		
018-051	<u>Garage (Clay Royal Place)</u>	\$ 1,452	
	Structural & Roofing systems inadequate. No operational value.		

Table VII-2. Facility Repair and Demolition Needs (Continued).

Bldg#	Building Name/Need	Demolition Cost	Repair Cost
018-052	<u>Clay Royal House</u> Structural & roofing systems unsound. No operational value.	\$ 1,950	
018-058	<u>Barn at Clay Royal Place</u> Roofing & Structural systems unsafe. No operational value.	\$ 600	
018-059	<u>Barn at Clay Royal Place</u> Replace broken glass		\$ 45
018-060	<u>Barracks</u> Building is in poor condition and has no operational value.	\$ 9,000	
018-061	<u>Restroom At Parking Lot</u> Add vents to doors Patch at skylights Provide HA parking		\$ 620 315 120 185
018-062	<u>New Maintenance Building</u> Replace damaged waterproofing system Add gutters Repair roof Install telephone Replace door Paint overhead doors		\$ 7,258 5,400 450 759 84 305 261
018-065	<u>Washhouse at Camping Area</u> Install fire extinguisher Repair roof at skylights Add kick plate to doors HA toilet facilities HA fountain		\$ 2,715 110 450 150 1,756 254
018-066	<u>Chicken Barn at Clay Royal's</u> Building leans noticeably to side; foundation damaged, wall structure poor.	\$ 1,686	
018-068	<u>Shed at Building 033</u> Roof and structural elements inadequate. No operational value.	\$ 375	
TOTALS		\$ 41,745	\$ 127,369

During a field evaluation of each facility, deficiencies are given priority ratings (critical, serious, or minor) and summarized for the park (Table VII-3). The deficiencies are classified in nine basic categories: site (the grounds and walkways surrounding the building); exterior envelope; interior envelope; fire/life safety; handicapped accessibility; public health; heating/ventilation/air conditioning (HVAC); plumbing; and electrical.

Table VII-3. Facility Repair and Demolition Cost Summary.

DEFICIENCY CATEGORY	CRITICAL	SERIOUS	MINOR	SUBTOTAL
SITE	8400	25012	18975	51387
EXTERIOR ENVELOPE	773	42833	7661	51267
INTERIOR ENVELOPE	0	5400	26033	31433
FIRE/LIFE SAFETY	1650	416	150	2216
HANDICAPPED ACCESS	0	3185	1854	5039
PUBLIC HEALTH	4500	0	0	4500
HVAC	90	14232	780	15102
PLUMBING/UTILITY	0	359	450	809
ELECTRICAL	2488	2422	2452	7361
	=====	=====	=====	=====
TOTALS	17900	92859	58355	169114

Deficiencies that are a threat to fire and life safety or the health of an individual are considered to be "critical." A "serious" deficiency is one that is not considered a threat to fire and life safety, but which could cause further damage to the structure if left uncorrected. "Minor" deficiencies are those requiring general maintenance and repair.

ROAD AND UTILITY INVENTORY

The inventory is divided into five major sections: roads and parking areas; water system; sewer system; electrical system; and telephone system. Each section has two parts: existing conditions and system recommendations. Information for this inventory is based on an inspection of the park utilities in October, 1991 as well as other information from the Institute for Transportation Research and Education (ITRE) study on roads, original construction drawings, and Division staff.

ROADS AND PARKING AREAS

Existing Conditions

According to the ITRE study completed in March 1990, there are 4.07 miles of paved roads and 3.67 miles of unpaved roads within the park. Parking areas include 4,082 square yards of paved parking areas and 715 square yards of unpaved parking areas. The paved roads are in good shape except for a few minor areas that need patch work.

The main park road narrows to a width of 18 feet in certain locations due to existing bridge widths, proximity to trout streams, and rock excavation. In most locations, however, the road width is 20 feet with four-foot shoulders. The main park road will need resurfacing in about five years. The existing annual service agreement with the N.C. Department of Transportation is adequate to maintain park roads.

Two issues are described below with corresponding recommendations in the next section.

1. The main unpaved road (formerly SR 1739) is narrow with many sharp curves and poor sight distances. Because it is heavily travelled, the road should be widened and paved to make it safer.
2. The status of the half-mile road accessing the Hutchinson house and the Stone Mountain trail should be addressed. The road, which is one-lane wide with pull-offs, was not built to accommodate the heavy volume of passing traffic that occurs during high visitation. The road terminates at an unpaved 20-car parking lot serving the most popular areas in the park. The parking lot fills up during busy weekends, and the overcrowding causes visitors to turn around and return to a larger, paved parking lot via the one-lane road. To widen and pave this road would cost approximately \$200,000 and create extensive environmental impacts. The 20-car parking lot cannot be expanded because of the surrounding topography.

Recommendations for Roads and Parking Areas

1. The 3.1 miles of gravel road from the picnic parking area to Long Bottom Road (formerly SR 1739) should be paved. Only minor grading is recommended to limit environmental impacts.
2. The road accessing the Hutchinson house should be paved to accommodate motor vehicle traffic, but the paving should be limited to the road's current width to reduce the environmental impacts. In addition, the park staff should be permitted to use its discretion in closing the road to the general public during peak-use periods such as summer weekends and the fall foliage season.

SEWER SYSTEMS

Existing Systems

There are approximately 25 different sewer systems at Stone Mountain State Park, ranging in size from 500 to 5,000 gallon capacity. Because none of the residential systems have risers, it is impossible to make an evaluation of the condition and size of these systems. The campground and picnic toilet systems have risers.

Recommendations for Sewer Systems

The residential sewer systems being used in the park should be inspected and pumped out. Risers should be added at each septic tank location. The park should ensure that chlorination tablets are maintained in the chlorinator at the sand filter bed and that all drainfields are adequately mowed and depressions filled in.

WATER SYSTEMS

Existing Conditions

The park facilities are served by nine drilled water wells of unknown capacities. The camping area washhouse and toilet building are the only facilities with chlorination capabilities. The primary distribution piping is PVC pipe.

The majority of the private residences the park has acquired are served by springs. The spring water quality and quantity are questionable at all locations. Two residences have septic tanks located directly above a spring head and no chlorination equipment.

Recommendations for the Water System

Drill wells at the two residences where a septic field is located above a spring head. Begin using chlorination equipment at the camping area washhouse and toilet building. Although these systems are considered non-community, they are public water supplies.

ELECTRICAL DISTRIBUTION SYSTEM

Existing Conditions

All public facilities are served by underground power lines supplied by Blue Ridge Electric Company. No problems with the current power distribution system are apparent.

Recommendations for the Electrical Distribution System

The power distribution system should continue to be maintained and owned by the power company. All electrical lines should be placed underground as funds become available.

TELEPHONE DISTRIBUTION SYSTEM

Existing Conditions

The park is served by Wilkes Telephone Company. Two telephones are located in the office, and three residences have telephone service. Pay telephones are located at the camping area washhouse and at the visitor center. There is no telephone at the maintenance area.

Recommendations for the Telephone Distribution System

A telephone should be installed in the maintenance area. The telephone system will be maintained by Wilkes Telephone Company.

MAJOR CAPITAL IMPROVEMENT PROJECT PRIORITIES

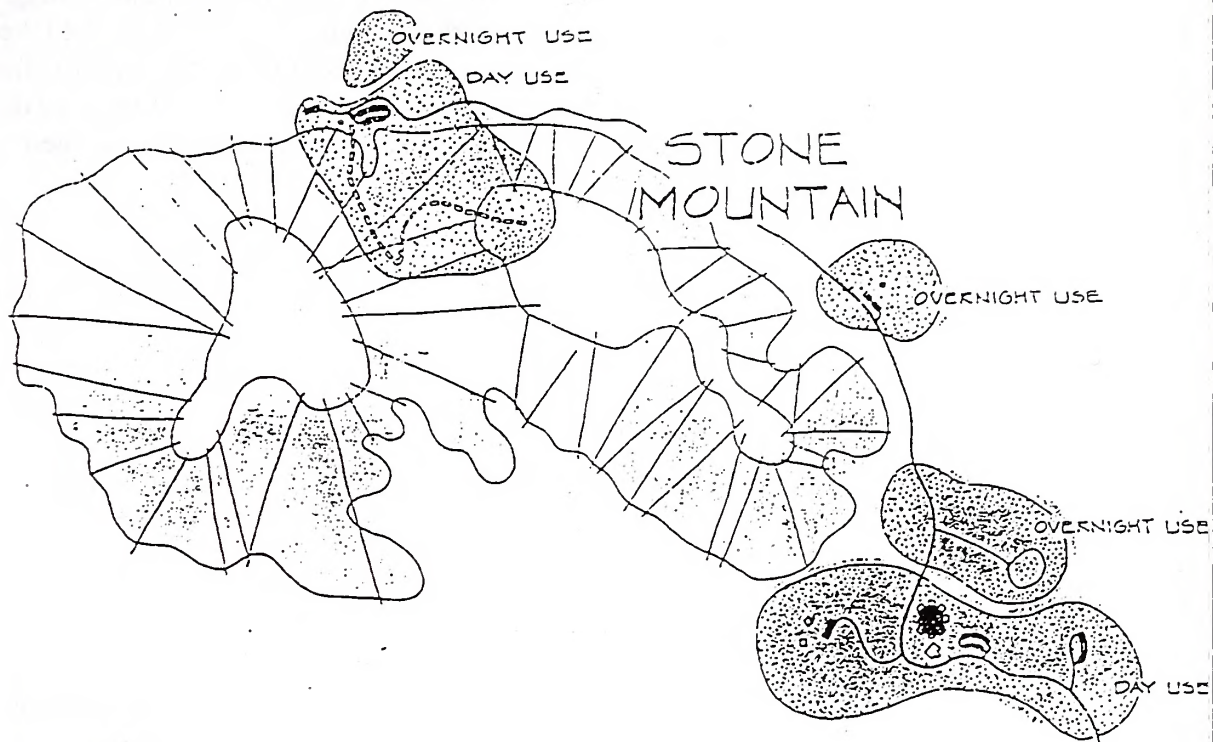
The Stone Mountain State Park Master Plan describes the long-range vision of what the park should be. A significant portion of the master plan is devoted to identifying short- and long-term development plans for the park (Figure VII-2). The methods by which these development plans are to be implemented are identified by detailing specific capital improvement projects that can be constructed through the state construction process.

By evaluating and ranking each of these projects, the Division has created a priority list of capital improvement projects for each park and for the state parks system. The priorities are based on the objectives the projects address and the project's urgency. The project objectives are: protecting public health, correcting a safety or fire hazard, protecting natural resources, protecting the public's investment in park facilities, maintaining the public use of an existing facility, meeting contractual obligations, saving energy or operating costs, enhancing environmental education, increasing public accessibility, improving visitor services, improving the park's appearance, maintaining a support facility, meeting legal mandates, and controlling pollution.

The evaluation of projects for the Stone Mountain State Park master plan ranked nine projects prior to the general management plan (Table VII-4). Following the GMP evaluation, the priority list was expanded to ten projects and ranked again (Table VII-5). The picnic area development project remains the highest priority.

Table VII-4. Pre-GMP Project Priority List

Rank	Description	Mean Score	Total Costs
1.	Picnic area development (road, parking, sites, shelters, toilets)	569	\$1,074,500
2.	Furniture, exhibits in visitor center	482	150,000
3.	Water system improvements utilities	481	156,500
4.	Bury underground electric service	458	705,513
5.	Warehouse	457	130,000
6.	Ranger residence (1)	434	130,700
7.	Renovation of Hutchinson homestead	423	300,000
8.	Renovate ranger residences (3)	369	183,000
9.	Landscaping (visitor center/picnic area)	344	150,000
		=====	
TOTAL:			\$2,980,213



1" = 600'

REVISED STONE MOUNTAIN PLAN

PHASE I DEVELOPMENT

LEGEND



VISITOR CENTER



USE AREAS

TRAPHILL

Figure VII-2. Master Plan - Phase I

One significant project, the lake development project, is not presented on the pre-GMP priority list or the revised priority list. During the 1980 master plan revision, this project was judged to be too expensive relative to the other proposals in the master plan. The lake development was given a lower priority and thus delayed until after the other capital improvement projects listed in the GMP are complete. The current GMP review concurred that the lake development project is a lower priority and recommended that subsequent general management plans reassess the status of the proposed lake.

RECOMMENDED CHANGES TO PROJECT PRIORITY LIST

Projects with Revised Cost Estimates and Unchanged Scopes

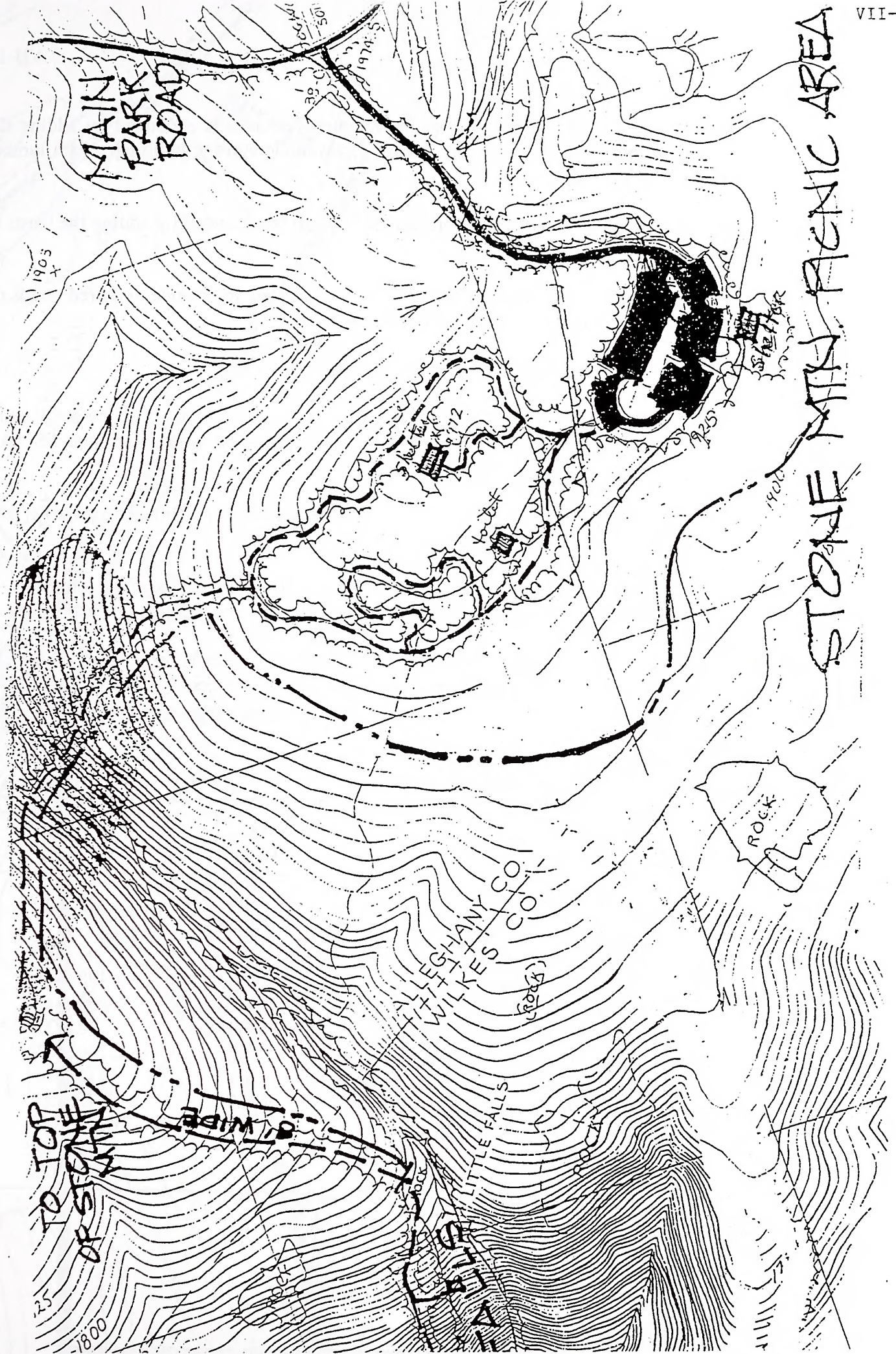
1. The picnic area development project (\$989,400) includes connecting trails to the Stone Mountain falls and mountain trail (Figure VII-3).

Projects to be Deleted

1. Visitor center landscaping (\$150,000) is deleted as a separate project. The project will be added to the project to purchase furniture and exhibits for the visitor center (project #1 on the list of projects with changed scopes).
2. Warehouse construction and landscaping (\$130,000) is deleted as a separate project and combined into an expanded project adding three storage buildings to the maintenance area (project #3 on the list of projects with changed scopes).
3. The underground electric transmission line project (\$705,513) is deleted as not feasible. Limited burial of power lines at the park entrance area will be included in the utilities project (project #2 on the list of projects with changed scopes).
4. The ranger residence project (\$130,700) is deleted because sufficient residences exist in the park.

Projects with Changed Scopes

1. The project funding visitor center furniture and exhibits will be expanded to include landscaping (\$209,000).
2. The utilities project (\$84,900) eliminates the cost of putting power lines underground and adds water, sewer and electrical repair work.



3. The warehouse project (\$295,000) in the maintenance area is expanded by adding the construction of a flammable storage building, a vehicle storage building, and a lumber shed (Figure VII-4).
4. The Hutchinson house restoration project (\$375,900) is expanded by adding the barns to the scope of the restoration.
5. The park housing renovations (\$126,600) are expanded to include required work on housing for the seasonal staff and campground host.

Projects Proposed to be Added to List

1. A building demolition project (\$75,400) removes all structures identified by the Facility Inventory and Inspection Program as structurally unsound or not suitable for park purposes.
2. The trail renovation project (\$1,136,500) completes the Stone Mountain loop trail system and upgrades all trails to minimum standards.
3. The campground expansion project (\$498,800) includes construction of 30 campsites, an amphitheater, a toilet building, and the supporting roads and utilities (Figure VII-5).
4. The building renovation and repair project (\$33,200) includes all other building repairs not included in residence repairs, campground project, or special historical renovation work.

Table VII-5. Revised Project Priority List

Rank	Description	Mean Score	Total Costs
1.	Picnic area development (roads, parking, sites, shelters, toilets)	586	\$ 989,400
2.	Water/sewer/electric utilities repairs	531	84,900
3.	Family campground expansion	513	498,800
4.	Visitor center furniture, exhibits, landscaping	502	209,000
5.	Maintenance area improvements	489	295,000
6.	Trail improvements project	480	1,136,500
7.	Renovation of Hutchinson homestead	457	375,900
8.	Building demolitions	403	75,400
9.	Park housing needs	369	126,600
10.	Building renovations	295	33,200
			<u>\$3,824,700</u>

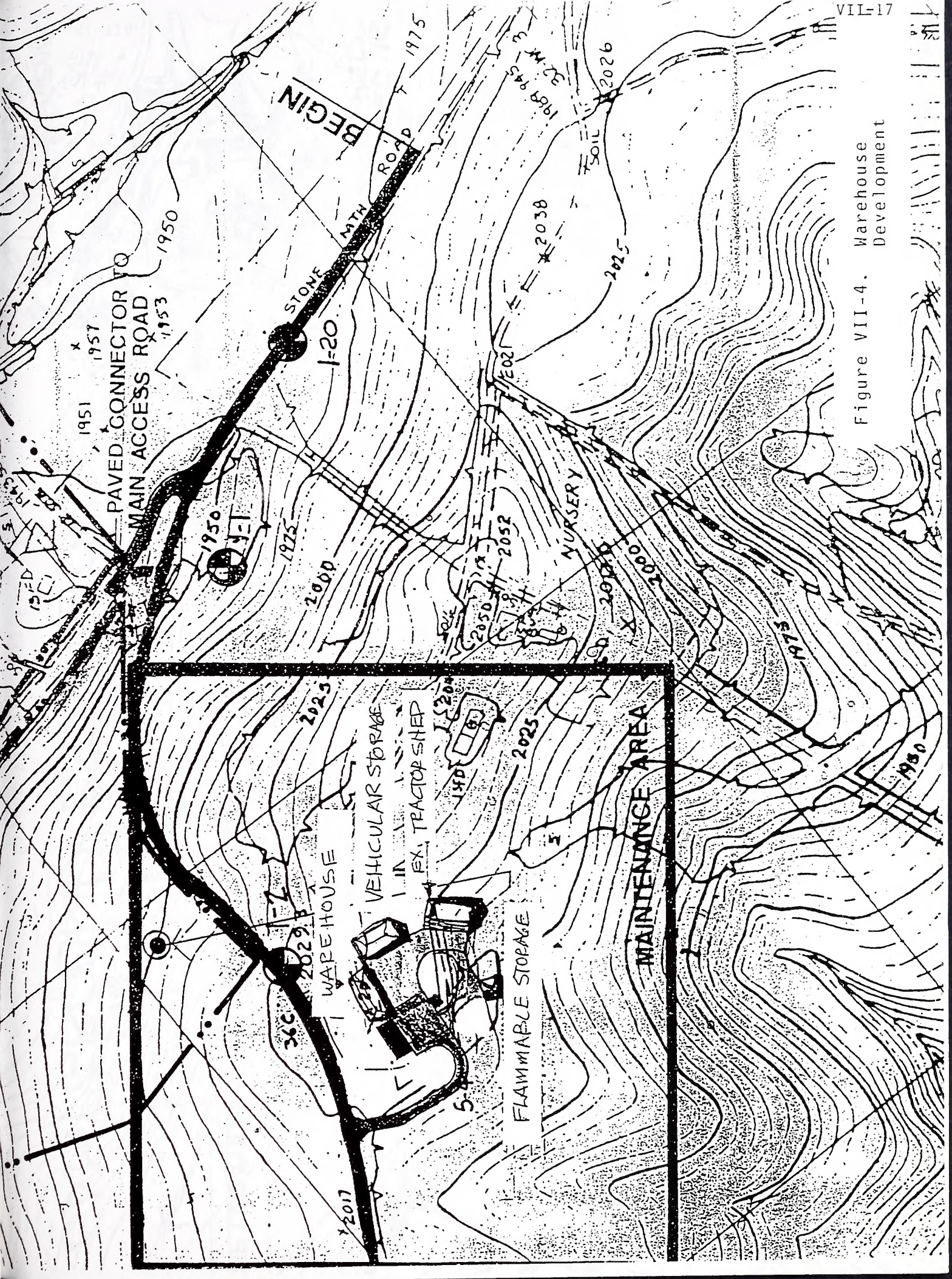
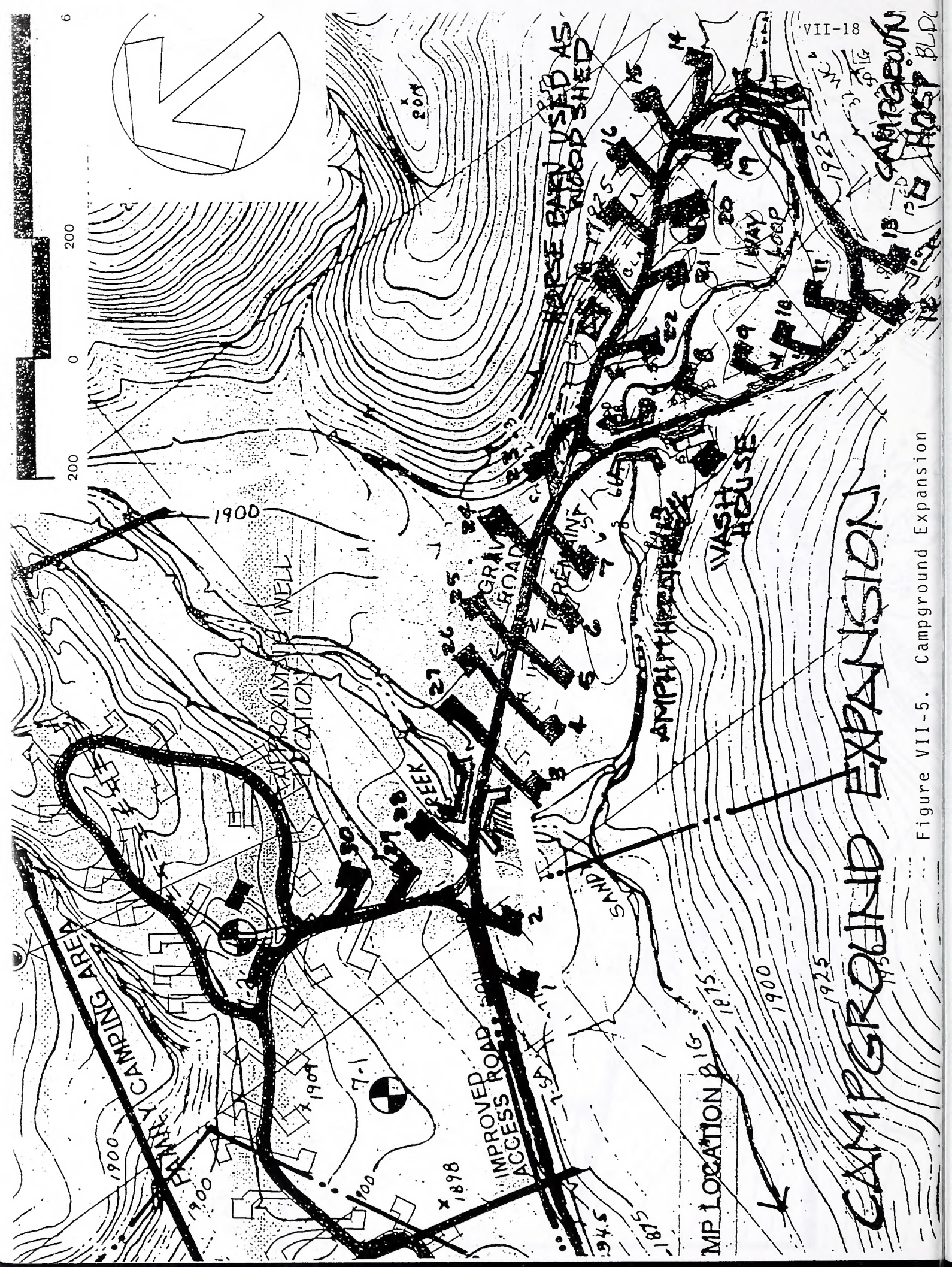


Figure VII-4. Warehouse Development



VII-18

Figure VII-5. Campground Expansion

VIII. PARK OPERATIONS

INTRODUCTION

The major concerns addressed in the general management plan process are identified by Division of Parks and Recreation staff as the plan is initiated. These issues are classified into three main categories: natural resources, capital improvements, and operations. This section deals with the park operations issues and recommendations. Six major management and operations issues have been identified as being of significant concern at Stone Mountain State Park.

1. The current park staff levels do not meet visitor expectations for service or State Parks Act mandates.
2. The operating budget is inadequate to efficiently manage the park.
3. The increasing use of the trail system impacts trail surfaces, natural resource values, and park aesthetics.
4. Insufficient facilities and exhibits hinder the park's interpretation and education program.
5. Is rock climbing an appropriate activity?
6. How should the overcrowding at the base of Stone Mountain, including the one-lane access road and small parking lot, be managed?

STAFFING LEVELS

Issue Statement: Stone Mountain State Park does not have sufficient staff to meet public expectations for visitor services, provide interpretative programs, manage natural resources, protect public safety and maintain park facilities.

Background: A superintendent and two rangers are the only permanent staff available to manage this 13,000-acre park with annual visitation above 250,000. There are 26 miles of hiking trails in rugged mountain terrain as well as five miles of bridle trails in the park. One ranger is usually responsible for patrolling over 6,500 acres of backcountry. Ranger staff shortages are particularly acute during hunting season because the park shares a boundary with the Thurmond Chatham Gameland. Routine boundary patrol to enforce park regulations prohibiting hunting is extremely time consuming and takes the ranger on patrol away from most visitor contact. Consequently, it is impossible to effectively provide visitor services and natural resource management.

The visitor center, which the public expects to be open during normal business hours and weekends, is staffed by one clerk-typist and one peak-load clerk-typist to provide visitor information. The two positions are available no more than 56 hours per week, although the park is open 91 hours per week during the summer. Without clerical staff on duty, park rangers must either answer the phones and serve as receptionists or close the office. When the office is closed, telephone inquiries are unanswered, and park visitors must search to find a ranger, whether they have routine questions or need emergency assistance.

The maintenance staff is inadequate to perform routine tasks, repairs, and preventative maintenance. The park's one skilled maintenance position cannot perform the tasks created by sustained increases in park visitation and new facilities. The ranger staff is not trained for, and should not be regularly diverted to, skilled maintenance tasks. Routine maintenance demands, such as collecting trash and cleaning facilities, have also increased. Park rangers and skilled maintenance mechanics must often perform these tasks at the expense of projects requiring their skills and training.

Recommendations: The current park staff must be increased from five positions to 9.5 permanent positions to meet the immediate public contact, public safety, administrative, and maintenance requirements (Table VIII-1). This additional staffing is not a full staffing plan for the park, but meets the most immediate and critical staffing needs.

A peak-load clerk-typist is needed on weekends. Two additional park rangers are needed to assist with interpretation and education programs and to manage park resources. Two additional maintenance positions are needed to handle the increase in park visitation and facilities. Additional general utility workers and park attendants are needed to complete more routine maintenance tasks and visitor contact.

Table VIII-1. Staffing Needs.

Current Staff		Proposed Additions	
Permanent			
Superintendent	1	Ranger	2
Ranger	2	Maintenance	2
Maintenance Mechanic	1	Clerk-Typist	1
Clerk Typist	1		
Seasonal			
General Utility Worker	1	General Utility Worker	1
Park Attendant	2	Park Attendant	1
Peak Load			
Clerk Typist	1	Clerk Typist	1
Park Attendant	2	Park Attendant	1

OPERATING AND EQUIPMENT BUDGET

Issue Statement: The budget for operations, equipment, and supplies is not adequate to effectively manage the park. All program areas are affected, including natural resource management, interpretation and education, emergency services, and maintenance.

Background: Expenditures of fiscal year (FY) 1991-92 totalled \$164,809, with nearly 70 percent being salaries. The FY '92-93 request is \$212,600.

Interpretation and education (I&E), a primary purpose of the state parks system, is compromised by the lack of resources. The park does not own equipment to catalogue and present slide show or video tapes. Little scientific equipment is available. Rangers giving educational programs on birds and wildlife do not have binoculars for visitors to use. Experienced bird watchers typically bring their own equipment. For a novice who cannot see what the ranger is describing without binoculars, the program may be more frustrating than educational.

Recommendations: Stone Mountain State Park must be allocated an operating budget that adequately provides for equipment, materials and supplies needed for daily maintenance and park operations. An increased operating and equipment budget is needed for staffing, educational supplies, maintenance supplies, repairs, and motor vehicles (Table VIII-2). Given the park's current size and facilities, the operating and equipment budget should be \$396,000. A detailed equipment list is also presented by line item (Table VIII-3).

Specific I&E equipment and supply needs include a slide projector, screen, slide library with light table, dissecting microscope, television, video cassette recorder, binoculars, spotting scope, camera, and aquatics equipment.

Table VIII-2. Operating Budget Needs

Line Item	Description	Cost
1211	Staff Salaries (Add 2 rangers, and 2 maintenance positions)	\$ 192,427
1411	Peak Load Wages (Add clerk typist, park attendant)	10,529
1491	Seasonal Wages (Add general utility worker, park attendant)	17,262
2110	Janitorial Supplies (New visitor center)	2,500
2130	Uniforms and Clothing (additional staff)	3,650
2190	Household Cleaning Supplies	200
2130	Educational & scientific supplies (audio-visual equipment, I&E displays, binoculars)	6,000
2360	Medical & agric. supplies (supplies for first responder & first-aid kits, herbicides for exotics, taxidermy mounts, landscaping supplies and plants)	1,200
2400	Maintenance & Construction Supplies (small tools and equipment, lumber, paint, shingles)	8,000
2510	Motor fuel & lubricants (operate additional vehicles)	2,000
2520	Tires & tubes	500
2530	Misc. parts	750
2590	Other motor vehicle repairs	2,000
2600	Other Materials and Supplies	700
2700	Purchases for Resale (Items for sale at visitor center)	5,000
2920	Photographic supplies	200
2990	Other supplies (law enforcement & boundary signs)	500
3111	Travel in State- Transportation	4,000
3112	Travel in State- Subsistence (Training)	2,000
3210	Telephone	1,200
3250	Postage	600
3310	Electricity	5,500
3330	Natural Gas	500
3510	Repairs to Buildings	1,000
3590	Other repairs (welding, septic tanks pumping, repairs to power tools)	2,000
3990	Other Services	4,500
4390	Rental of Equipment	800
4910	Dues and Subscriptions	100
5100	Office Furniture and Equipment (visitor center)	2,050
5200	Data Processing Equipment	3,000
5300	Educational Equipment	3,700
5310	Film	100
5400	Motor Vehicles (Replacements and for added staff)	65,000
5430	Boats and Trailers	1,750
5500	Other Equipment	43,100
5600	Reference books (updated law books, BLET materials, I&E books)	200
8510	Imprest Cash	100
TOTAL:		\$ 396,618

Table VIII-3. Detailed Equipment Budget Needs.

Line Item	Description	Cost
5100	Office Furniture and Equipment for visitor center (Telephone system, Fax Machine, Desk)	2,050
5200	Data Processing Equipment (Personal Computer System)	3,000
5300	Educational Equipment (VCR/TV Monitor, Slide Library with Light Table, spotting scope, and dissecting microscope)	3,700
5400	Motor Vehicles (Replacement and for added staff)	60,000
	ranger vehicles (2)	\$ 30,000
	maintenance vehicle	15,000
	dump truck	<u>15,000</u>
		\$60,000
5500	Other Equipment	\$43,100
	mowers (2)	\$ 1,600
	table saw	1,200
	portable public address system	1,200
	radial arm saw	2,500
	utility trailer	1,000
	landscape rake	800
	tractor backhoe attachment	8,000
	tractor winch	1,500
	bandsaw	700
	refrigerator	1,200
	joiner/planer	800
	B1-11 pumper unit	5,000
	box blade for tractor	500
	leaf blower/vacuum	3,000
	air impact wrench set	600
	microwave oven	500
	cooking ranges (2)	1,000
	side arm reciprocal brush mower	<u>12,000</u>
		43,100
		<u>\$ 111,850</u>

Note: The equipment budget is summarized and included in the operating and equipment budget using the appropriate line item (Table VIII-2). This detailed equipment budget presents specific equipment needs within each budget line item.

TRAIL SYSTEM

Issue Statement: Visitation is increasing at Stone Mountain State Park as more people become aware of the park's natural beauty. The trails, particularly those serving the main scenic areas, will continue to be heavily used. The Registered Natural Heritage Areas at Stone Mountain and Wolf Rock are traversed by trails.

Background: The trail system consists of approximately 26 miles of designated hiking trails. Visitation has increased, particularly in the past five years, to nearly 300,000 visits. The trail system should provide the visitor with a pleasurable trail experience while protecting natural resources. The trail system does not presently meet either objective. Many park trails are actually old road beds and are in good shape. Some trails are in poor condition because of terrain and erosion. Trail compaction and drainage are the major concerns where trail work is needed.

Recommendations: The design, development, maintenance and use of the trail system at Stone Mountain State Park need to be evaluated for consistency with protecting of natural resource values, improving aesthetic values, and accommodating visitor use. New trail routes, as well as major trail renovations, will be reviewed by the Division's Natural Resource Section to identify and avoid or minimize impacts on significant natural resources.

Creating additional horse trails, particularly in the backcountry section, or allowing mountain bicycles will create unacceptable impacts because of the park's steep terrain and backcountry character.

All hiking trails listed below are old logging roads and are currently six-to-eight feet wide. They should be reconstructed to an average width of four feet. In eroded and compacted sections, trails should be surfaced with a base of two inches of crusher run stone under two inches of rock screenings and topped with two inches of bark mulch. Bark mulch should not be used on grades of greater than ten percent. Certain trail segments will need steps or terraces to enable hikers to ascend steep slopes. Where steps are necessary, they will be built into the ground or as close to the ground as possible. Specific improvements recommended are listed below for each trail.

Wolf Rock Trail:

- Install water bars and steps in steeply sloping sections to reduce erosion.
- A new trail segment should be created from the paved parking lot at the restroom to Wolf Rock and Cedar Rock.

Stone Mountain Nature Trail:

- Install a boardwalk across the wet area the trail traverses.
- Replace all the interpretive signs.

Lower/Middle Falls Trail:

- Improve drainage where a natural spring creates standing water by using surge stone.

Bridle Trail:

- Maintain the current trail by repairing eroded segments.
- Consider adding a bridle trail head.

Indian Den Trail:

- Close the trail because of its poor condition.

New Trails:

- Stone Mountain Trail: Develop a new trail segment from the paved parking lot at the restroom to the top of Stone Mountain thereby encouraging visitors to avoid the extremely steep trail segment from the gravel parking lot at the base of the mountain.
- Wolf Rock Trail: A new trail segment should be created from the paved parking lot at the restroom to Wolf Rock and Cedar Rock.
- Develop a new trail from the group camp site to Wolf Rock.
- Develop a new connecting trail from Blackjack Trail to either Middle Falls or the Stone Mountain Trail.
- Develop a new connecting trail from the proposed picnic area to the Stone Mountain Trail.

SUPPORT FOR INTERPRETATION AND EDUCATION PROGRAMS

Issue Statement: Current interpretation and education (I&E) exhibits and facilities do not adequately inform and educate visitors.

Background: Every state parks system unit needs high quality exhibits and facilities to support the State Parks Act mandate to promote pride in and understanding of North Carolina's natural heritage. Exhibits, brochures, and programs are primary means of educating visitors about the park's interpretative themes (identified in Chapter 3) and informing the public about safety and resource management issues.

Although Stone Mountain State Park receives nearly 300,000 visits annually, no outdoor facility is available for I&E programs. Programs in other state parks are usually held at a picnic shelter during the day and in an amphitheater near a campground at night. Stone Mountain has neither facility. Evening programs are usually held at a vacant campsite.

All park exhibits need improvements; including cleaning, replacing background material, improving text, replacing art work, and replacing photographs. Efforts to accomplish these tasks are currently hindered by the limited staff time and operating budget.

The new visitor center, which opened in 1992, provides an excellent opportunity to educate visitors about the park. Unfortunately, no exhibits were included in the visitor center construction project. The exhibits on display are donations from local park supporters. No state funding was available to develop exhibits based on the park's interpretive themes.

Recommendations: The most effective ways to improve interpretation and education programs are to:

- build an amphitheater and picnic shelter to provide a place to present programs;
- improve existing exhibits;
- fund exhibits for the new visitor center; and
- put new exhibits at important locations.

Comprehensive park information is needed at five locations (campground, picnic area, visitor center, backpack camping parking lot, and horse trail head). An exhibit is needed at the base of Stone Mountain to replace the information for rock climbers.

Four diaramas are needed at the visitor center describing the geology of the mountains, mountain culture, mountain habitats, and trout streams (a children's exhibit).

ROCK CLIMBING

Issue: Is rock climbing an appropriate activity in the park? If it is, what is the Division's responsibility to ensure the safety of the climbers?

Background: Rock climbing is a high-risk activity that is popular on Stone Mountain. Rock climbers have been attracted to the park since the park's establishment. Between 40 and 80 rock climbing routes are currently located on Stone Mountain by rock climbers. No active management of rock climbers is performed by park staff except to inform climbers that no new climbing routes are allowed. Rock climbers are responsible for the safety of the routes they use. No studies have been done to determine if rock climbing causes significant natural resource impacts

Recommendation: The Division should ask the park advisory committee to evaluate appropriateness of rock climbing in Stone Mountain State Park. During the next five years, the Division should determine whether rock climbing is appropriate. If it is, the Division should take steps to ensure visitor safety, designate areas where climbing is permitted, and study the natural resource impacts.

OVERCROWDING AT THE BASE OF STONE MOUNTAIN

Issue: The half-mile, one-lane road and parking lot accessing the Hutchinson house and the Stone Mountain trail become overcrowded during high visitation.

Background: The road to the base of Stone Mountain, which is one-lane wide with pull-offs, was not built to accommodate the high volume of passing traffic that occurs on busy days. The road terminates at an unpaved, 20-car parking lot serving the most popular area in the park. The parking lot serves as a trail head for the Stone Mountain trail, the Wolf Rock/Cedar Rock trail and seven of the park's 12 picnic tables. The small picnic area is the only place in the

13,000 acre park in which a group picnic can be held.

The parking lot fills up during busy weekends, and the overcrowding causes visitors to turn around and return to a larger, paved parking lot via the one-lane road. Currently, visitors who park in the lower parking lot must hike the one-lane road to get to the hiking trails. To widen and pave this road would cost approximately \$200,000 and create extensive environmental impacts. The 20-car parking lot cannot be expanded because of the surrounding topography.

Recommendation: The road accessing the Hutchinson house should be paved to accommodate motor vehicle traffic, but the paving should be limited to the road's current width to reduce the environmental impacts. Although the road should remain open most days, the park staff will be permitted to use its discretion in closing the road to the general public during peak-use days such as summer weekends and the fall foliage season. When overcrowding occurs, the road access should be limited to park staff and people with disabilities.

The larger, paved parking lot near the restrooms should be made more attractive by creating new trail heads. New trail segments should be established to link the parking lot with the Stone Mountain Trail and the Wolf Rock/Cedar Rock Trail. Developing these new trail segments will allow hikers to access these popular trails without walking on the road to the Hutchinson house. The new picnic area with a picnic shelter should be constructed near the visitor center as described in Chapter VII to provide a more suitable location and redirect picnickers away from the base of the mountain.

IX. LAND ACQUISITION NEEDS

LAND ACQUISITION STATUS

Stone Mountain State Park contains 13,437 acres. The park was included in the 1985 appropriation for state park land acquisition; 1,173 acres were acquired and about two acres are still pending. The 1985 land acquisition program removed all inholdings with access from the main park road. In addition, lands were acquired to protect the water quality of the stream originating on the escarpment and the scenic qualities of the escarpment.

FUTURE LAND ACQUISITION NEEDS

The Greenstreet Mountain and Twin Knobs areas were removed from the future land acquisition list in 1988 by the Division director to reduce the size of the planned park. These two areas are experiencing residential development. To complete the master planned area for Stone Mountain State Park with these deletions would take an additional 3,393 acres.

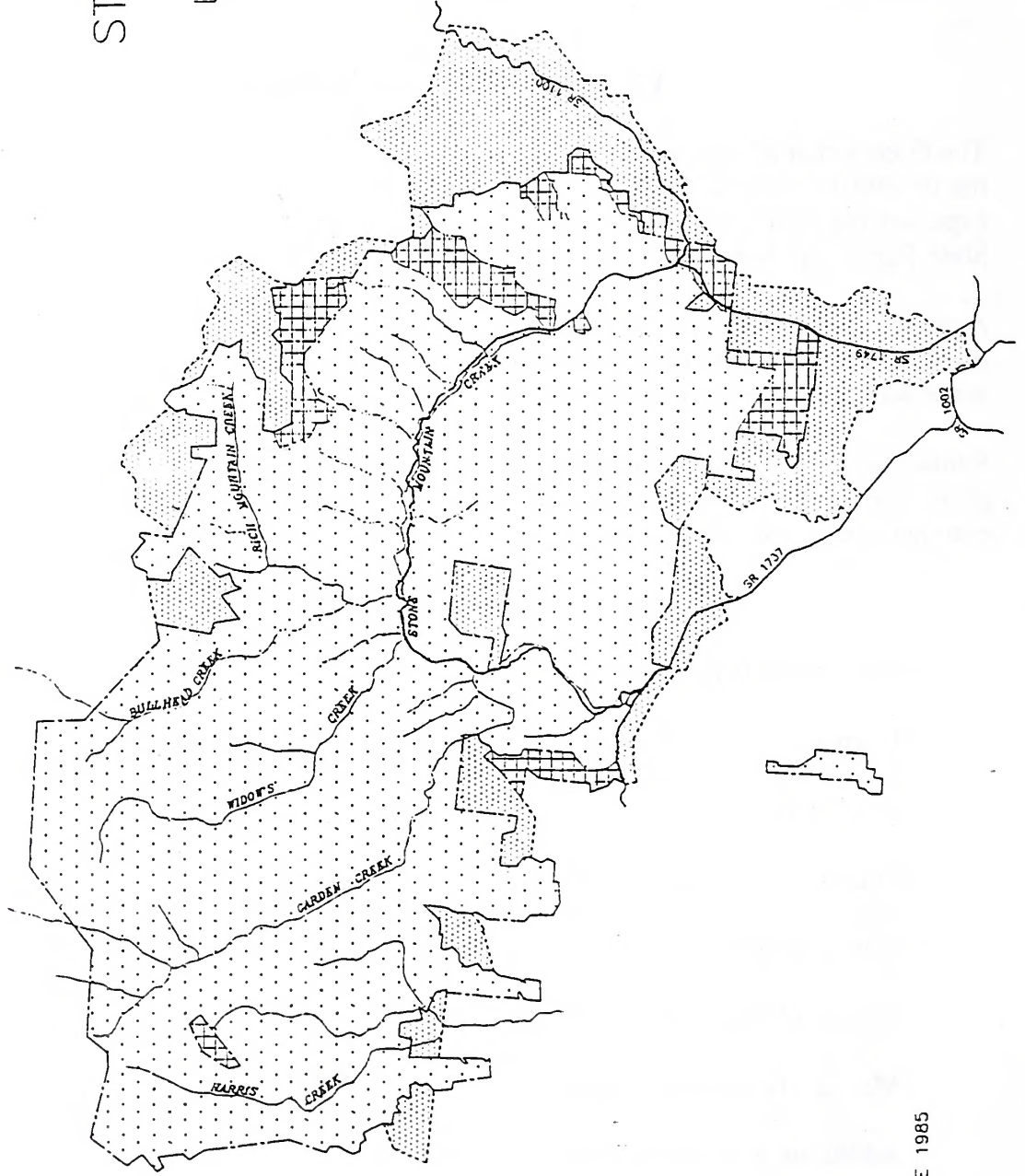
Approximately 150 additional acres along Sandy Creek were recommended for addition to the master plan boundaries during the general management planning process. The addition of these acres was recommended for buffer and boundary line management.

Remaining land acquisition priorities include the protection of the park's primary resources, the protection of the water quality, the protection of the scenic resources, the protection of the entrance road, and the acquisition of land necessary for master-planned development.




Summary Table

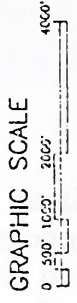
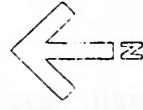
1985 size of the park	12,264 acres
Current program additions	<u>1,173 acres</u>
1992 size of the park	13,437 acres
Pending acquisitions	<u>2 acres</u>
Anticipated size	13,439 acres
Master planned needs	<u>3,393 acres</u>
Master planned size of park	16,832 acres
Additions to master planned needs	<u>150 acres</u>
New total planned size of park	16,982 acres

STONE MOUNTAIN STATE PARK LAND ACQUISITIONS



LEGEND

-  PARK - 1985
-  ACQUIRED SINCE 1985
-  FUTURE NEEDS



APPENDIX A

PARK PROFILE

Location: Alleghany and Wilkes counties

Size: 13,434 acres

Established: 1969

Facilities:

Trout streams (7 streams)
 Backpacking campsites (6 sites)
 Group camping (2 primitive areas)
 Tent and trailer campsites (37 sites)
 Picnicking (2 interim areas, 12 tables)
 Trails (hiking - 20 miles, bridle - 5 miles)

Existing Staff:

Permanent:

1 Park Superintendent II
 2 Park Ranger II
 1 Maintenance Mechanic
 1 Clerk Typist

Seasonal

2 Park Attendant
 1 General Utility Worker

Peak Load

1/2 Clerk Typist
 2 Park Attendant

Statistics:

FY 1990-91

Visitation (Calender)	284,722
Operating Budget	180,378
Revenue	38,968

APPENDIX B

CAPITAL IMPROVEMENT REQUESTS

North Carolina's Division of Parks and Recreation

FEB 21, 92

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Stmo By Mean Score

Job Description	Job Codes	Dst Cde	Locations	Mean Score	Total Costs
1 Picnic area dev.-pr,pl,sites,shelters,toilets	250N18	6 WES	Stone Mtn	605 \$	989,400
2 Water/sewer/electric utilities repairs	610R18	4 WES	Stone Mtn	531 \$	84,900
3 Family campground expansion	230N18	1 WES	Stone Mtn	513 \$	498,800
4 Furniture,exhibits,landscape visitor center	164N18	7 WES	Stone Mtn	502 \$	209,000
5 Maintenance area improvements	148N18	5 WES	Stone Mtn	489 \$	295,000
6 Trail improvements project	40R18	1 WES	Stone Mtn	480 \$	1,136,500
7 Renovation of hutchinson homestead	520R18	1 WES	Stone Mtn	457 \$	375,900
8 Building demolitions	510R18	1 WES	Stone Mtn	403 \$	75,400
9 Park housing needs	300R18	8 WES	Stone Mtn	369 \$	126,600
10 Building renovations	530R18	2 WES	Stone Mtn	312 \$	33,200

				\$	3,824,700

				\$	3,824,700

Total number of jobs reported = 10

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